Mathematica 7 Test Results

For Integration Problems of the Form $\text{Cos}[x]^m \left(A + B\,\text{Cos}[x] + C\,\text{Cos}[x]^2\right) (a + b\,\text{Cos}[x])^n$

Problems of the form $\text{Cos}[x]^m \left(A + B\,\text{Cos}[x] + C\,\text{Cos}[x]^2\right) (b\,\text{Cos}[x])^n$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{b\,\text{Cos}[c+d\,x]}}{\text{Cos}[c+d\,x]^{3/2}}, x, 2, 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{b\,\text{Cos}[c+d\,x]}}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{b\,\text{Cos}[c+d\,x]}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{b\,\text{Cos}[c+d\,x]}}{\text{Cos}[c+d\,x]^{7/2}}, x, 3, 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{b\,\text{Cos}[c+d\,x]}}{2\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{\sqrt{b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\frac{1}{4\,d\,\text{Cos}[c+d\,x]^{5/2}}\sqrt{b\,\text{Cos}[c+d\,x]}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$\left.\text{Cos}[2\,(c+d\,x)]\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+2\,\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(b\,\text{Cos}[c+d\,x])^{3/2}}{\text{Cos}[c+d\,x]^{5/2}}, x, 2, 0\right\}$$

$$\frac{b\,\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{b\,\text{Cos}[c+d\,x]}}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{(b\,\text{Cos}[c+d\,x])^{3/2}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)}{d\,\text{Cos}[c+d\,x]^{3/2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(b\,\text{Cos}[c+d\,x])^{5/2}}{\text{Cos}[c+d\,x]^{7/2}}, x, 2, 0\right\}$$

$$\frac{b^2\,\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{b\,\text{Cos}[c+d\,x]}}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{(b\,\text{Cos}[c+d\,x])^{5/2}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)}{d\,\text{Cos}[c+d\,x]^{5/2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{b\,\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{\text{Cos}[c+d\,x]}}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\,\sqrt{b\,\text{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{\text{Cos}[c+d\,x]}}{2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{\text{Sin}[c+d\,x]}{2\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$\text{Cos}[2\,(c+d\,x)]\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\left.2\,\text{Sin}[c+d\,x]\right)\Big/\left(4\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{b\,\text{Cos}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{(b\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{\text{Cos}[c+d\,x]}}{b\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\text{Cos}[c+d\,x]^{3/2}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)}{d\,(b\,\text{Cos}[c+d\,x])^{3/2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{(b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{\text{Cos}[c+d\,x]}}{b^2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)}{b^2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]}{\sqrt{b\,\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{2\,(A-C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\text{Sin}[c+d\,x]}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\sqrt{b\,\text{Cos}[c+d\,x]}}\sqrt{2}\;e^{-i\,d\,x}\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Csc}[c]$$

$$\left(-6\,A\,\text{Cos}[d\,x]+3\,C\,\text{Cos}[d\,x]+3\,C\,\text{Cos}[2\,c+d\,x]+3\,(A-C)\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\left.(A-C)\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{2},\,\frac{3}{4},\,\frac{7}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^2}{\sqrt{b\,\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$

$$\frac{2\,(A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b\,\text{Sin}[c+d\,x]}{3\,d\,(b\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{3\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Csc}[c]^2}}$$

$$2\left(-(A+3\,C)\,\text{Cos}[c+d\,x]\,\sqrt{\text{Cos}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2}\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\left.\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]+A\,\sqrt{\text{Csc}[c]^2}\;\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3}{\sqrt{b\,\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,(3\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b^2\,\text{Sin}[c+d\,x]}{5\,d\,(b\,\text{Cos}[c+d\,x])^{5/2}}+\frac{2\,(3\,A+5\,C)\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{10\,(b\,\text{Cos}[c+d\,x])^{3/2}\,(2\,A+C+C\,\text{Cos}[2\,(c+d\,x)])}$$

$$b\,\text{Cos}[c+d\,x]^{7/2}\left(\frac{2\,(2\,(4\,A+5\,C)\,\text{Cos}[d\,x]+(A+5\,C)\,\text{Cos}[2\,c+d\,x]+(3\,A+5\,C)\,\text{Cos}[2\,c+3\,d\,x])\,\text{Csc}[c]}{d\,\text{Cos}[c+d\,x]^{5/2}}-\right.$$

$$\frac{1}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}4\,\sqrt{2}\;(3\,A+5\,C)\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Csc}[c]$$

$$\left.\left(3\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+e^{2\,i\,d\,x}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,\frac{3}{4},\,\frac{7}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)\right)\,\left(C+A\,\text{Sec}[c+d\,x]^2\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]}{(b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,4,\,0\right\}$$

$$\frac{2\,(A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\text{Sin}[c+d\,x]}{3\,d\,(b\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{3\,b\,d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Csc}[c]^2}}$$

$$2\left(-(A+3\,C)\,\mathrm{Cos}[c+d\,x]\,\sqrt{\mathrm{Cos}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2}\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$
$$\left.\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]+A\,\sqrt{\mathrm{Csc}[c]^2}\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{\sqrt{b\,\mathrm{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(A-C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,\mathrm{Sin}[c+d\,x]}{d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{\text{Cos}[c+d\,x]^2\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])\left(-\frac{4\,(-2\,A+C+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\frac{4\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}\right)}{\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}-$$

$$\left(4\,B\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\frac{1}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}\,2\,A\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-$$

$$\frac{1}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}\,2\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{\sqrt{b\,\text{Cos}[c+d\,x]}},\,x,\,8,\,0\right\}$$

$$-\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b\,\text{Sin}[c+d\,x]}{3\,d\,(b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{2\,B\,\text{Sin}[c+d\,x]}{d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\text{Cos}[c+d x]^3 \left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right) \left(\frac{8 B \text{Csc}[2 c]}{d}+\frac{4 A \text{Sec}[c] \text{Sec}[c+d x]^2 \text{Sin}[d x]}{3 d}+\frac{4 \text{Sec}[c] \text{Sec}[c+d x] (A \text{Sin}[c]+3 B \text{Sin}[d x])}{3 d}\right)}{\sqrt{b \text{Cos}[c+d x]} (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x])}-$$

$$\left(4 A \text{Cos}[c+d x]^{5/2} \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right) \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3 d \sqrt{b \text{Cos}[c+d x]} (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x]) \sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4 C \text{Cos}[c+d x]^{5/2} \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right) \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d \sqrt{b \text{Cos}[c+d x]} (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x]) \sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\frac{1}{d \sqrt{b \text{Cos}[c+d x]} (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x])} 2 B \text{Cos}[c+d x]^{5/2} \text{Csc}[c] \left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right)$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{(b \text{Cos}[c+d x])^{3/2}}, x, 8, 0\right\}$$

$$-\frac{2 B \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{b d \sqrt{b \text{Cos}[c+d x]}}+$$

$$\frac{2 (A+3 C) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 b d \sqrt{b \text{Cos}[c+d x]}}+\frac{2 A \text{Sin}[c+d x]}{3 d (b \text{Cos}[c+d x])^{3/2}}+\frac{2 B \text{Sin}[c+d x]}{b d \sqrt{b \text{Cos}[c+d x]}}$$

$$\frac{1}{b}\left(\frac{\text{Cos}[c+d\,x]^3\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)\left(\frac{8\,B\,\text{Csc}[2\,c]}{d}+\frac{4\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+\frac{4\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+3\,B\,\text{Sin}[d\,x])}{3\,d}\right)}{\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}-\right.$$

$$\left(4\,A\,\text{Cos}[c+d\,x]^{5/2}\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(2\,B\,\text{Cos}[c+d\,x]^{5/2}\,\text{Csc}[c]\,\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)\right.$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)\Big/$$

$$\left.\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(A-C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\text{Sin}[c+d\,x]}{b^2\,d\,\sqrt{b\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{b^2}\left(\frac{\text{Cos}[c+d\,x]^2\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])\left(-\frac{4\,(-2\,A+C+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\frac{4\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}\right)}{\sqrt{b\,\text{Cos}[c+d\,x]}\;(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}-\right.$$

$$\left(4\,B\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\;(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(2\,A\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])\right.$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\;\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)\Big/$$

$$\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\;(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])\right)-$$

$$\left(2\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Csc}[c]\,\left(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x]\right)\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)\Big/\left(d\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\left(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{b\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\,x,\,7,\,0\right\}$$

$$\frac{(3\,A+4\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]\,\sqrt{b\,\text{Cos}[c+d\,x]}}{8\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{A\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{B\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{(3\,A+4\,C)\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{8\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,B\,\sqrt{b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{(-3A-4C)\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\sqrt{\mathrm{Cos}[c+dx]}}+$$

$$\frac{(3A+4C)\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\sqrt{\mathrm{Cos}[c+dx]}}+$$

$$\frac{A\sqrt{b\,\mathrm{Cos}[c+dx]}}{16d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{(9A+4B+12C)\sqrt{b\,\mathrm{Cos}[c+dx]}}{48d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{B\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{2B\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}-$$

$$\frac{A\sqrt{b\,\mathrm{Cos}[c+dx]}}{16d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{B\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\frac{(-9A-4B-12C)\sqrt{b\,\mathrm{Cos}[c+dx]}}{48d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{2B\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\sqrt{\mathrm{Cos}[c+dx]}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(b\,\mathrm{Cos}[c+dx])^{3/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{13/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{b(3A+4C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+dx]]\sqrt{b\,\mathrm{Cos}[c+dx]}}{8d\sqrt{\mathrm{Cos}[c+dx]}}+\frac{Ab\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{4d\,\mathrm{Cos}[c+dx]^{9/2}}+$$

$$\frac{bB\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3d\,\mathrm{Cos}[c+dx]^{7/2}}+\frac{b(3A+4C)\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{8d\,\mathrm{Cos}[c+dx]^{5/2}}+\frac{2bB\sqrt{b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3d\,\mathrm{Cos}[c+dx]^{3/2}}$$

$$\frac{(-3A-4C)(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\,\mathrm{Cos}[c+dx]^{3/2}}+$$

$$\frac{(3A+4C)(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\,\mathrm{Cos}[c+dx]^{3/2}}+$$

$$\frac{A(b\,\mathrm{Cos}[c+dx])^{3/2}}{16d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{(9A+4B+12C)(b\,\mathrm{Cos}[c+dx])^{3/2}}{48d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{B(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{2B(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}-$$

$$\frac{A(b\,\mathrm{Cos}[c+dx])^{3/2}}{16d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{B(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\frac{(-9A-4B-12C)(b\,\mathrm{Cos}[c+dx])^{3/2}}{48d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{2B(b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\,\mathrm{Cos}[c+dx]^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(b\,\mathrm{Cos}[c+dx])^{5/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{15/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{b^2 (3 A + 4 C) \text{ArcTanh}[\text{Sin}[c + d x]] \sqrt{b \text{Cos}[c + d x]}}{8 d \sqrt{\text{Cos}[c + d x]}} + \frac{A b^2 \sqrt{b \text{Cos}[c + d x]} \text{Sin}[c + d x]}{4 d \text{Cos}[c + d x]^{9/2}} +$$

$$\frac{b^2 B \sqrt{b \text{Cos}[c + d x]} \text{Sin}[c + d x]}{3 d \text{Cos}[c + d x]^{7/2}} + \frac{b^2 (3 A + 4 C) \sqrt{b \text{Cos}[c + d x]} \text{Sin}[c + d x]}{8 d \text{Cos}[c + d x]^{5/2}} + \frac{2 b^2 B \sqrt{b \text{Cos}[c + d x]} \text{Sin}[c + d x]}{3 d \text{Cos}[c + d x]^{3/2}}$$

$$\frac{(-3 A - 4 C) (b \text{Cos}[c + d x])^{5/2} \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d \text{Cos}[c + d x]^{5/2}} +$$

$$\frac{(3 A + 4 C) (b \text{Cos}[c + d x])^{5/2} \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d \text{Cos}[c + d x]^{5/2}} +$$

$$\frac{A (b \text{Cos}[c + d x])^{5/2}}{16 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} + \frac{(9 A + 4 B + 12 C) (b \text{Cos}[c + d x])^{5/2}}{48 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} +$$

$$\frac{B (b \text{Cos}[c + d x])^{5/2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{6 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} + \frac{2 B (b \text{Cos}[c + d x])^{5/2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{3 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)} -$$

$$\frac{A (b \text{Cos}[c + d x])^{5/2}}{16 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} + \frac{B (b \text{Cos}[c + d x])^{5/2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{6 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} +$$

$$\frac{(-9 A - 4 B - 12 C) (b \text{Cos}[c + d x])^{5/2}}{48 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{2 B (b \text{Cos}[c + d x])^{5/2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{3 d \text{Cos}[c + d x]^{5/2} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2}{\text{Cos}[c + d x]^{9/2} \sqrt{b \text{Cos}[c + d x]}}, x, 7, 0\right\}$$

$$\frac{(3 A + 4 C) \text{ArcTanh}[\text{Sin}[c + d x]] \sqrt{\text{Cos}[c + d x]}}{8 d \sqrt{b \text{Cos}[c + d x]}} + \frac{A \text{Sin}[c + d x]}{4 d \text{Cos}[c + d x]^{7/2} \sqrt{b \text{Cos}[c + d x]}} +$$

$$\frac{B \text{Sin}[c + d x]}{3 d \text{Cos}[c + d x]^{5/2} \sqrt{b \text{Cos}[c + d x]}} + \frac{(3 A + 4 C) \text{Sin}[c + d x]}{8 d \text{Cos}[c + d x]^{3/2} \sqrt{b \text{Cos}[c + d x]}} + \frac{2 B \text{Sin}[c + d x]}{3 d \sqrt{\text{Cos}[c + d x]} \sqrt{b \text{Cos}[c + d x]}}$$

$$\frac{(-3 A - 4 C) \sqrt{\text{Cos}[c + d x]} \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d \sqrt{b \text{Cos}[c + d x]}} +$$

$$\frac{(3 A + 4 C) \sqrt{\text{Cos}[c + d x]} \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d \sqrt{b \text{Cos}[c + d x]}} +$$

$$\frac{A \sqrt{\text{Cos}[c + d x]}}{16 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} + \frac{(9 A + 4 B + 12 C) \sqrt{\text{Cos}[c + d x]}}{48 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} +$$

$$\frac{B \sqrt{\text{Cos}[c + d x]} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{6 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} + \frac{2 B \sqrt{\text{Cos}[c + d x]} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{3 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)} -$$

$$\frac{A \sqrt{\text{Cos}[c + d x]}}{16 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} + \frac{B \sqrt{\text{Cos}[c + d x]} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{6 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} +$$

$$\frac{(-9 A - 4 B - 12 C) \sqrt{\text{Cos}[c + d x]}}{48 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{2 B \sqrt{\text{Cos}[c + d x]} \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{3 d \sqrt{b \text{Cos}[c + d x]} \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{7/2}\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(3\,A+4\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]\,\sqrt{\mathrm{Cos}[c+d\,x]}}{8\,b\,d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Sin}[c+d\,x]}{4\,b\,d\,\mathrm{Cos}[c+d\,x]^{7/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{B\,\mathrm{Sin}[c+d\,x]}{3\,b\,d\,\mathrm{Cos}[c+d\,x]^{5/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{(3\,A+4\,C)\,\mathrm{Sin}[c+d\,x]}{8\,b\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,B\,\mathrm{Sin}[c+d\,x]}{3\,b\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}$$
$$\frac{(-3\,A-4\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}}+$$
$$\frac{(3\,A+4\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}}+$$
$$\frac{A\,\mathrm{Cos}[c+d\,x]^{3/2}}{16\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{(9\,A+4\,B+12\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}}{48\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{B\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{6\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{2\,B\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-$$
$$\frac{A\,\mathrm{Cos}[c+d\,x]^{3/2}}{16\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{B\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{6\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+$$
$$\frac{(-9\,A-4\,B-12\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}}{48\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{2\,B\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d\,(b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(3\,A+4\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]\,\sqrt{\mathrm{Cos}[c+d\,x]}}{8\,b^2\,d\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Sin}[c+d\,x]}{4\,b^2\,d\,\mathrm{Cos}[c+d\,x]^{7/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{B\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,d\,\mathrm{Cos}[c+d\,x]^{5/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{(3\,A+4\,C)\,\mathrm{Sin}[c+d\,x]}{8\,b^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,B\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{(-3A-4C)\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\,(b\,\mathrm{Cos}[c+dx])^{5/2}}+$$

$$\frac{(3A+4C)\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{8d\,(b\,\mathrm{Cos}[c+dx])^{5/2}}+$$

$$\frac{A\,\mathrm{Cos}[c+dx]^{5/2}}{16d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{(9A+4B+12C)\,\mathrm{Cos}[c+dx]^{5/2}}{48d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{B\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{2B\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}-$$

$$\frac{A\,\mathrm{Cos}[c+dx]^{5/2}}{16d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{B\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\frac{(-9A-4B-12C)\,\mathrm{Cos}[c+dx]^{5/2}}{48d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{2B\,\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3d\,(b\,\mathrm{Cos}[c+dx])^{5/2}\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}$$

Problems of the form $\mathbf{Cos[x]^m \left(A + B\,Cos[x] + C\,Cos[x]^2\right) (a + b\,Cos[x])^n}$ when $\mathbf{a^2 = b^2}$

Valid but unnecessarily complicated antiderivative:

$\{\text{Sec}[a+b\,x],\ x,\ 1,\ 0\}$

$$\frac{\text{ArcTanh}[\text{Sin}[a+b\,x]]}{b}$$

$$\frac{-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(a+b\,x)\right]-\text{Sin}\left[\frac{1}{2}(a+b\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(a+b\,x)\right]+\text{Sin}\left[\frac{1}{2}(a+b\,x)\right]\right]}{b}$$

Valid but unnecessarily complicated antiderivative:

$\{\text{Sec}[a+b\,x]^3,\ x,\ 2,\ 0\}$

$$\frac{\text{ArcTanh}[\text{Sin}[a+b\,x]]}{2\,b}+\frac{\text{Sec}[a+b\,x]\,\text{Tan}[a+b\,x]}{2\,b}$$

$$\frac{-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(a+b\,x)\right]-\text{Sin}\left[\frac{1}{2}(a+b\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(a+b\,x)\right]+\text{Sin}\left[\frac{1}{2}(a+b\,x)\right]\right]+\text{Sec}[a+b\,x]\,\text{Tan}[a+b\,x]}{2\,b}$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x],\ x,\ 2,\ 0\}$

$$a\,x+\frac{a\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}$$

$$\frac{a\left(d\,x-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\}$

$$\frac{a\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{a\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{a\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Tan}[c+d\,x]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\}$

$$\frac{a\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{a\,\text{Tan}[c+d\,x]}{d}+\frac{a\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}a\left(-2\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+2\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$\left.\frac{1}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{1}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+4\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\}$$

$$\frac{3\,a^2\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{2\,a^2\,\mathrm{Tan}[c+d\,x]}{d}+\frac{a^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}a^2\left(-6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$\left.\frac{1}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{1}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+8\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$\frac{a^2\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{5\,a^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{d}+\frac{a^2\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{24\,d}\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(-6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$\left(13\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]+4\,\mathrm{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+5\,\mathrm{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]\right)\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$\left.\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c]+(1+6\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{7\,a^2\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{4\,a^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+$$

$$\frac{7\,a^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{2\,a^2\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a^2\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{7\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4}{32\,d}+$$

$$\frac{7\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4}{32\,d}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{12\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(29\,\mathrm{Cos}\left[\frac{c}{2}\right]-13\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{12\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-29\,\mathrm{Cos}\left[\frac{c}{2}\right]-13\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 4,\ 0\}$$

$$3\,a^3\,x+\frac{3\,a^3\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{a^2\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{1}{8}\,a^3\,(1+\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(3\,x-\frac{3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{d}+\frac{\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+\frac{\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+\frac{\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\}$$

$$a^3\,x+\frac{7\,a^3\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{5\,a^3\,\mathrm{Tan}[c+d\,x]}{2\,d}+\frac{a^2\,(a+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$a^3\left(\frac{1}{4}\left(4\,x-\frac{14\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{14\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{1}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{1}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}\right)+\frac{3\,\mathrm{Tan}[c+d\,x]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$\frac{5\,a^3\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{10\,a^3\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{5\,a^3\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{48\,d}\,a^3\,(1+\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(15\left(-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\left(25\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]+10\,\mathrm{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+11\,\mathrm{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]\right)\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c]+(1+9\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{15\,a^3\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{5\,a^3\,\text{Tan}[c+d\,x]}{2\,d}+\frac{5\,a^3\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a\,(a+a\,\text{Sec}[c+d\,x])^2\,\text{Tan}[c+d\,x]}{4\,d}+\frac{(a+a\,\text{Sec}[c+d\,x])^3\,\text{Tan}[c+d\,x]}{4\,d}$$
$$-\frac{15\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{64\,d}+$$
$$\frac{15\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{64\,d}+$$
$$\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$
$$\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\left(19\,\text{Cos}\left[\frac{c}{2}\right]-11\,\text{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{3\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$
$$\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$
$$\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\left(-19\,\text{Cos}\left[\frac{c}{2}\right]-11\,\text{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{3\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{13\,a^3\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{38\,a^3\,\text{Tan}[c+d\,x]}{15\,d}+\frac{13\,a^3\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{19\,a^3\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,d}+\frac{11\,a^3\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{20\,d}+\frac{a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$
$$-\frac{1}{3840\,d}\,a^3\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^5$$
$$\Big(975\,\text{Cos}[2\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+975\,\text{Cos}[4\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$195\,\text{Cos}[4\,c+5\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$195\,\text{Cos}[6\,c+5\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$1950\,\text{Cos}[d\,x]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$1950\,\text{Cos}[2\,c+d\,x]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$975\,\text{Cos}[2\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-975\,\text{Cos}[4\,c+3\,d\,x]$$
$$\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-195\,\text{Cos}[4\,c+5\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$195\,\text{Cos}[6\,c+5\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-4640\,\text{Sin}[d\,x]+1440\,\text{Sin}[2\,c+d\,x]-1500\,\text{Sin}[c+2\,d\,x]-$$
$$1500\,\text{Sin}[3\,c+2\,d\,x]-3040\,\text{Sin}[2\,c+3\,d\,x]-390\,\text{Sin}[3\,c+4\,d\,x]-390\,\text{Sin}[5\,c+4\,d\,x]-608\,\text{Sin}[4\,c+5\,d\,x]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 5,\ 0\}$$

$$\frac{13\,a^4\,x}{2}+\frac{4\,a^4\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{5\,a^4\,\mathrm{Sin}[c+d\,x]}{2\,d}-\frac{a^3\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{a^2\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{1}{64}\,a^4\,(1+\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8\left(26\,x-\frac{16\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{16\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{16\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{d}+\frac{\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{d}+\frac{16\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+\frac{\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{d}+\frac{4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+\frac{4\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\}$$

$$4\,a^4\,x+\frac{13\,a^4\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}-\frac{5\,a^4\,\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{3\,a^3\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{d}+\frac{a^2\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{64}\,a^4\,(1+\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8\left(16\,x-\frac{26\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{26\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{d}+\frac{4\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+\frac{1}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{16\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{1}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{16\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{35\,a^4\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{35\,a^4\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{35\,a^4\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{24\,d}+\frac{7\,a^2\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{a\,(a+a\,\mathrm{Sec}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{35\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{128\,d}+$$

$$\frac{35\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{128\,d}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{256\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{24\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(97\,\mathrm{Cos}\left[\frac{c}{2}\right]-65\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{768\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{5\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{12\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{256\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{24\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(-97\,\mathrm{Cos}\left[\frac{c}{2}\right]-65\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{768\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{5\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{12\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{7\,a^4\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{14\,a^4\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{7\,a^4\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{6\,d}+$$

$$\frac{7\,a^2\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{15\,d}+\frac{a\,(a+a\,\mathrm{Sec}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{5\,d}+\frac{(a+a\,\mathrm{Sec}[c+d\,x])^4\,\mathrm{Tan}[c+d\,x]}{5\,d}$$

$$-\frac{1}{960\,d}\,a^4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^5$$

$$\Big(525\,\mathrm{Cos}[2\,c+3\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+525\,\mathrm{Cos}[4\,c+3\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$105\,\mathrm{Cos}[4\,c+5\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$105\,\mathrm{Cos}[6\,c+5\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$1050\,\mathrm{Cos}[d\,x]\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$

$$1050\,\mathrm{Cos}[2\,c+d\,x]\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$

$$525\,\mathrm{Cos}[2\,c+3\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-525\,\mathrm{Cos}[4\,c+3\,d\,x]$$

$$\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-105\,\mathrm{Cos}[4\,c+5\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$105\,\mathrm{Cos}[6\,c+5\,d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-2360\,\mathrm{Sin}[d\,x]+960\,\mathrm{Sin}[2\,c+d\,x]-$$

$$660\,\mathrm{Sin}[c+2\,d\,x]-660\,\mathrm{Sin}[3\,c+2\,d\,x]-1600\,\mathrm{Sin}[2\,c+3\,d\,x]+$$

$$60\,\mathrm{Sin}[4\,c+3\,d\,x]-210\,\mathrm{Sin}[3\,c+4\,d\,x]-210\,\mathrm{Sin}[5\,c+4\,d\,x]-332\,\mathrm{Sin}[4\,c+5\,d\,x]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 4,\ 0\right\}$$

$$-\frac{x}{a}+\frac{\text{Sin}[c+d\,x]}{a\,d}+\frac{\text{Sin}[c+d\,x]}{a\,d\,(1+\text{Cos}[c+d\,x])}$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]\left(-2\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-2\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+5\,\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Sin}\left[c+\frac{d\,x}{2}\right]+\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]\right)}{4\,a\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}-\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}2\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]$$
$$\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 4,\ 0\right\}$$

$$-\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}+\frac{2\,\text{Tan}[c+d\,x]}{a\,d}-\frac{\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}2\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]$$
$$\left(\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\right.$$
$$\left.\frac{2\,\text{Sin}\left[\frac{3\,c}{2}\right]}{\text{Cos}\left[\frac{c}{2}\right]+\text{Cos}\left[\frac{5\,c}{2}\right]}+\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{3\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a\,d}-\frac{2\,\text{Tan}[c+d\,x]}{a\,d}+\frac{3\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a\,d}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\right.$$
$$\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-6\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+6\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\right.$$
$$\left.\left.4\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]+\frac{1}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{1}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^4}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$-\frac{3\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a\,d}+\frac{8\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{3\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a\,d}+\frac{4\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a\,d\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(6\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\frac{1}{8}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\right.$$
$$\left(9\,\text{Cos}[2\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+9\,\text{Cos}[4\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$27\,\text{Cos}[d\,x]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$27\,\text{Cos}[2\,c+d\,x]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$9\,\text{Cos}[2\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-9\,\text{Cos}[4\,c+3\,d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.\left.48\,\text{Sin}[d\,x]-12\,\text{Sin}[2\,c+d\,x]-6\,\text{Sin}[c+2\,d\,x]-6\,\text{Sin}[3\,c+2\,d\,x]+20\,\text{Sin}[2\,c+3\,d\,x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^2\,d}-\frac{\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{4\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{3\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}$$
$$2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(6\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\left.\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+8\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Tan}\left[\frac{c}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^2\,d}+\frac{10\,\text{Tan}[c+d\,x]}{3\,a^2\,d}-\frac{\text{Tan}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{2\,\text{Tan}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$\frac{1}{3\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+14\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+6\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(2\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\right.\right.$$
$$\left.\left.2\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]\right)+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Tan}\left[\frac{c}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^4}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{5\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^2\,d}+\frac{8\,\text{Tan}[c+d\,x]}{a^2\,d}-\frac{5\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{a^2\,d}+\frac{4\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{a^2\,d}-\frac{\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{10\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(960\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\left(-3\,\text{Sin}\left[\frac{d\,x}{2}\right]+155\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-153\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+21\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-135\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+25\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+45\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-85\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+99\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+21\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+33\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-45\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+57\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+18\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+24\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-15\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+24\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+11\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+13\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 4,\ 0\right\}$$

$$\frac{\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^3\,d}-\frac{\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{7\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{22\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}-\frac{1}{15\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}2\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(60\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+3\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+14\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+88\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^4\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+3\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Tan}\left[\frac{c}{2}\right]+14\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\text{Tan}\left[\frac{c}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$\frac{13\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^3\,d}-\frac{152\,\text{Tan}[c+d\,x]}{15\,a^3\,d}+\frac{13\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^3\,d}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{11\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{76\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(24\,960\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left(-1235\,\text{Sin}\left[\frac{d\,x}{2}\right]+3805\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-4329\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+1989\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-\right.$$
$$3575\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-475\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+2005\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-2275\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2673\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+$$
$$105\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+1593\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-975\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+1325\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+255\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$\left.\left.875\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-195\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+304\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+90\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+214\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 7,\ 0\right\}$$
$$-\frac{4\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}+\frac{664\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-$$
$$\frac{12\,\text{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{88\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{4\,\text{Tan}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$\frac{1}{1680\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(107\,520\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(-10\,780\,\text{Sin}\left[\frac{d\,x}{2}\right]+18\,788\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-20\,524\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+14\,644\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-\right.$$
$$16\,660\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-4690\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+14\,378\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9100\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+11\,668\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$
$$630\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+9358\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2940\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+4228\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+315\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$\left.\left.3493\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-420\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+664\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+105\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+559\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 8,\ 0\right\}$$
$$\frac{21\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^4\,d}-\frac{576\,\text{Tan}[c+d\,x]}{35\,a^4\,d}+\frac{21\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^4\,d}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-$$
$$\frac{2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{5\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{43\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{35\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{288\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{35\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{2240\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(376\,320\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left(-24\,402\,\text{Sin}\left[\frac{d\,x}{2}\right]+55\,556\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-61\,054\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+33\,614\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-51\,842\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-12\,460\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+33\,716\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-34\,300\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+39\,788\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-2940\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+26\,068\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-16\,660\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+21\,351\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+1295\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+14\,911\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-5145\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+7329\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+1225\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+5369\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-735\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+1152\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+280\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+872\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^5},\ x,\ 8,\ 0\right\}$$

$$-\frac{5\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^5\,d}+\frac{496\,\text{Tan}[c+d\,x]}{63\,a^5\,d}-\frac{\text{Tan}[c+d\,x]}{9\,d\,(a+a\,\text{Cos}[c+d\,x])^5}-\frac{5\,\text{Tan}[c+d\,x]}{21\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{29\,\text{Tan}[c+d\,x]}{63\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{67\,\text{Tan}[c+d\,x]}{63\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{5\,\text{Tan}[c+d\,x]}{a^4\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{2016\,a^5\,d\,(1+\text{Cos}[c+d\,x])^5}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(322\,560\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^9\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(-33\,978\,\text{Sin}\left[\frac{d\,x}{2}\right]+52\,002\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-56\,952\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+43\,722\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-47\,208\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-18\,144\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+41\,796\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-28\,350\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+34\,578\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-5691\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+28\,719\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-11\,550\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+15\,517\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-504\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+13\,186\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-2835\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+4149\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+252\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+3582\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-315\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+496\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+63\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+433\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^5},\ x,\ 9,\ 0\right\}$$

$$\frac{31\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^5\,d}-\frac{7664\,\text{Tan}[c+d\,x]}{315\,a^5\,d}+\frac{31\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^5\,d}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{9\,d\,(a+a\,\text{Cos}[c+d\,x])^5}-\frac{17\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{63\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{28\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{45\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{577\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{315\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{3832\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{315\,a^4\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{40320\,a^5\,d\,(1+\text{Cos}[c+d\,x])^5}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(19998720\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^9\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left(-1472562\,\text{Sin}\left[\frac{d\,x}{2}\right]+2822886\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-3057654\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$
$$1885854\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-2644362\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-867048\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+1868436\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$1821498\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2083537\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-339885\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+1456687\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$
$$966735\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+1195641\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-46515\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+874341\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-$$
$$367815\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+494579\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+31815\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+374879\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-$$
$$87885\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+128187\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+18585\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+99837\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-$$
$$\left.\left.9765\,\text{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]+15328\,\text{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]+3150\,\text{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]+12178\,\text{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]\right)\right)$$

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x],\ x,\ 1,\ 0\right\}$$

$$\frac{2\sqrt{2}\;a\,\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^2,\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{2}\;a\,\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,\text{Tan}[c+d\,x]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^3,\ x,\ 3,\ 0\right\}$$

$$\frac{3\,a\,\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\sqrt{2}\;d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{3\,a\,\text{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{5\,a\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{5\,a\,\text{Tan}[c+d\,x]}{8\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{5\,a\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{12\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x],\ x,\ 3,\ 0\right\}$$

$$\frac{2\sqrt{2}\,a^2\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,\text{Sin}[c+d\,x]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$\frac{3\sqrt{2}\,a^2\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\text{Tan}[c+d\,x]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{7\,a^2\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{7\,a^2\,\text{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$\frac{11\,a^2\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{11\,a^2\,\text{Tan}[c+d\,x]}{8\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{11\,a^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{12\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x],\ x,\ 3,\ 0\right\}$$

$$\frac{2\sqrt{2}\,a^3\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{14\,a^3\,\text{Sin}[c+d\,x]}{3\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^2\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$\frac{5\sqrt{2}\,a^3\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^3\,\mathrm{Sin}[c+d\,x]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 3,\ 0\right\}$$

$$\frac{19\,a^3\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{9\,a^3\,\mathrm{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{25\,a^3\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{25\,a^3\,\mathrm{Tan}[c+d\,x]}{8\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{13\,a^3\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{12\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{163\,a^3\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{32\sqrt{2}\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{163\,a^3\,\mathrm{Tan}[c+d\,x]}{64\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{163\,a^3\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{96\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{17\,a^3\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$-\frac{2\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{2\sqrt{2}\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{\sqrt{2}\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{\mathrm{Tan}[c+d\,x]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{7\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Tan}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]^4}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{9\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{7\,\text{Tan}[c+d\,x]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[x]}{\sqrt{a+a\,\text{Cos}[x]}},\ x,\ 3,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\text{Sin}\left[\frac{x}{2}\right]\right]\,\text{Cos}\left[\frac{x}{2}\right]}{\sqrt{a+a\,\text{Cos}[x]}}+\frac{2\,\sqrt{2}\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{x}{2}\right]\right]\,\text{Cos}\left[\frac{x}{2}\right]}{\sqrt{a+a\,\text{Cos}[x]}}$$

$$\frac{1}{2\,\sqrt{a\,(1+\text{Cos}[x])}}$$

$$\text{Cos}\left[\frac{x}{2}\right]\left(-2\,i\,\sqrt{2}\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{x}{4}\right]-\left(-1+\sqrt{2}\right)\,\text{Sin}\left[\frac{x}{4}\right]}{\left(1+\sqrt{2}\right)\,\text{Cos}\left[\frac{x}{4}\right]-\text{Sin}\left[\frac{x}{4}\right]}\right]+\frac{(2-2\,i)\,\left((1-i)+\sqrt{2}\right)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{x}{4}\right]-\left(1+\sqrt{2}\right)\,\text{Sin}\left[\frac{x}{4}\right]}{\left(-1+\sqrt{2}\right)\,\text{Cos}\left[\frac{x}{4}\right]-\text{Sin}\left[\frac{x}{4}\right]}\right]}{(1+i)+\sqrt{2}}+\right.$$

$$4\,\text{Log}\left[\text{Cos}\left[\frac{x}{4}\right]-\text{Sin}\left[\frac{x}{4}\right]\right]-4\,\text{Log}\left[\text{Cos}\left[\frac{x}{4}\right]+\text{Sin}\left[\frac{x}{4}\right]\right]+2\,\sqrt{2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{x}{2}\right]\right]-$$

$$\left.\sqrt{2}\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{x}{2}\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{x}{2}\right]\right]-\frac{(1+i)\,\left((1-i)+\sqrt{2}\right)\,\text{Log}\left[-2\,\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{x}{2}\right]\right)\right]}{(1+i)+\sqrt{2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{3\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$
$$-\frac{1}{4\,a\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left(3\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+\right.$$
$$3\,\text{Cos}[c+d\,x]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]\right)-$$
$$\left.3\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{5\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,\sqrt{2}\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{9\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{3\,\sqrt{2}\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Tan}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{3\,\text{Tan}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{13\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{19\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{7\,\text{Tan}[c+d\,x]}{4\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^4}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{163\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-$$

$$\frac{17\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}-\frac{197\,\text{Sin}[c+d\,x]}{24\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{95\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{48\,a^3\,d}$$

$$-\frac{163\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{163\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}-\frac{40\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{c}{2}\right]}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{8\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{3\,c}{2}\right]}{3\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}-\frac{40\,\text{Cos}\left[\frac{c}{2}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+\frac{8\,\text{Cos}\left[\frac{3\,c}{2}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{3\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^4}-\frac{29\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}-$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^4}+\frac{29\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{43\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{2}\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{11\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{115\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{5\,\sqrt{2}\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\text{Tan}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{15\,\text{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{35\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x]),\ x,\ 6,\ 0\right\}$$

$$\frac{6\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{10\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{10\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{3\,\text{Cot}[c]}{5\,d}+\frac{23\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\right.\right.$$

$$\left.\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{23\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x]),\,x,\,5,\,0\right\}$$

$$\frac{6\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\;(1+\text{Cos}[c+d\,x])\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{3\,\text{Cot}[c]}{5\,d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\;(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\;\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\;\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\;\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x]),\,x,\,4,\,0\right\}$$

$$\frac{2\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{\text{Cot}[c]}{d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}\right)-\right.$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{2\,d}\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\text{Cos}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,3,\,0\right\}$$

$$\frac{2\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}$$

$$\frac{1}{2\,d}\,a\,\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-2\,\sqrt{\text{Cos}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2}\,\sqrt{\text{Csc}[c]^2}\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\text{Sin}[c]+\text{Tan}[d\,x+\text{ArcTan}[\text{Tan}[c]]]-$$

$$\left.\frac{\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Tan}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}{\sqrt{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,4,\,0\right\}$$

$$-\frac{2\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c]^2}\,\sqrt{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2}}\,a\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sec}[c]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]-\right.$$

$$\left(3\,\text{Cos}[c-d\,x-\text{ArcTan}[\text{Tan}[c]]]\,\text{Csc}[2\,c]+\text{Cos}[c+d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Csc}[2\,c]-2\,\text{Cos}[d\,x]\,\text{Csc}[c]\,\sqrt{\text{Sec}[c]^2}+\right.$$

$$2\,\text{Cos}[c+d\,x]\,\sqrt{\text{Cos}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2}\,\sqrt{\text{Csc}[c]^2}\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\left.\left.\sqrt{\text{Sec}[c]^2}\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\text{Sin}[c]\right)\sqrt{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(\frac{2\,\text{Csc}[2\,c]}{d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(\text{Sin}[c]+3\,\text{Sin}[d\,x])}{3\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{6\,a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,a\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{6\,a\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\frac{6\,\text{Csc}[2\,c]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,\text{Sin}[c]+5\,\text{Sin}[d\,x])}{15\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,\text{Sin}[c]+9\,\text{Sin}[d\,x])}{15\,d}\right)-\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2,\ x,\ 7,\ 0\right\}$$

$$\frac{32\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{20\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{20\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{32\,a^2\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{4\,a^2\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{8\,\text{Cot}[c]}{15\,d}+\frac{23\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\frac{37\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{360\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{144\,d}+\frac{23\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+\frac{37\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{360\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}+\frac{\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{144\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{15\,d}\,4\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2,\ x,\ 6,\ 0\right\}$$

$$\frac{12\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{8\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{7\,d}+\frac{8\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{4\,a^2\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-\frac{3\,\text{Cot}[c]}{5\,d}+\frac{17\,\text{Cos}[d\,x]\,\text{Sin}[c]}{56\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{56\,d}+\frac{17\,\text{Cos}[c]\,\text{Sin}[d\,x]}{56\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{56\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2,\,x,\,5,\,0\right\}$$

$$\frac{16\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{4\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{4\,\text{Cot}[c]}{5\,d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{20\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{20\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{5\,d}\,2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$

$$\frac{4\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{8\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-\frac{\text{Cot}[c]}{d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{2\,d}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{4\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{8\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a^2\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{4\,a^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\frac{2\,\text{Csc}[2\,c]}{d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{6\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(\text{Sin}[c]+6\,\text{Sin}[d\,x])}{6\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{16\,a^2\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a^2\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{4\,a^2\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{16\,a^2\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\frac{8\,\text{Csc}[2\,c]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{10\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,\text{Sin}[c]+10\,\text{Sin}[d\,x])}{30\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,\text{Sin}[c]+12\,\text{Sin}[d\,x])}{15\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{5\,d}\,2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3,\,x,\,7,\,0\right\}$$

$$\frac{68\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{44\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{44\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{68\,a^3\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{40\,a^3\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{17\,\text{Cot}[c]}{30\,d}+\frac{97\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{73\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\frac{3\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\right.$$

$$\left.\frac{97\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+\frac{73\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+\frac{3\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}+\frac{\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{60\,d}\,17\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^3,\,x,\,6,\,0\right\}$$

$$\frac{28\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{52\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{52\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{32\,a^3\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(-\frac{7\,\text{Cot}[c]}{10\,d}+\frac{107\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{3\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{40\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{107\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+\frac{3\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{40\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{20\,d}\,7\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$\frac{36\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{8\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{9\,\text{Cot}[c]}{10\,d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{4\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{40\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{4\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{40\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{20\,d}\,9\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,5,\,0\right\}$$

$$\frac{4\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{20\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-$$

$$\frac{4\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(1+3\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{4\,d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{12\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{12\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{4\,d}\right)-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{4\,d}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{4\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{20\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{16\,a^3\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(-5+\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{4\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{12\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(\text{Sin}[c]+9\,\text{Sin}[d\,x])}{12\,d}\right)-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{4\,d}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{36\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+$$

$$\frac{8\,a^3\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{36\,a^3\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\frac{9\,\text{Csc}[2\,c]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{20\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(\text{Sin}[c]+5\,\text{Sin}[d\,x])}{20\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,\text{Sin}[c]+18\,\text{Sin}[d\,x])}{20\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20\,d}\,9\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{28\,a^3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{52\,a^3\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{32\,a^3\,\text{Sin}[c+d\,x]}{35\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{52\,a^3\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{28\,a^3\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\frac{7\,\text{Csc}[2\,c]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{28\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,\text{Sin}[c]+21\,\text{Sin}[d\,x])}{140\,d}+\right.$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(63\,\text{Sin}[c]+130\,\text{Sin}[d\,x])}{420\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(65\,\text{Sin}[c]+147\,\text{Sin}[d\,x])}{210\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20\,d}\,7\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^4,\,x,\,8,\,0\}$$

$$\frac{128\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{904\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+$$

$$\frac{904\,a^4\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+\frac{128\,a^4\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{860\,a^4\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{693\,d}+$$

$$\frac{52\,a^3\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{99\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{11\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$
$$\left(-\frac{8\,\text{Cot}[c]}{15\,d}+\frac{4087\,\text{Cos}[d\,x]\,\text{Sin}[c]}{14\,784\,d}+\frac{37\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{360\,d}+\frac{321\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{9856\,d}+\right.$$
$$\left.\frac{\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{144\,d}+\frac{\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{1408\,d}+\frac{4087\,\text{Cos}[c]\,\text{Sin}[d\,x]}{14\,784\,d}+\frac{37\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{360\,d}+\right.$$
$$\left.\frac{321\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{9856\,d}+\frac{\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{144\,d}+\frac{\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{1408\,d}\right)-$$
$$\frac{1}{462\,d\,\sqrt{1+\text{Cot}[c]^2}}\,113\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$
$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{15\,d}\,4\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]$$
$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$
$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$
$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4,\,x,\,7,\,0\right\}$$
$$\frac{152\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{32\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{7\,d}+$$
$$\frac{32\,a^4\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{188\,a^4\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$
$$\frac{44\,a^3\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,a^2\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\left(-\frac{19\,\text{Cot}[c]}{30\,d}+\frac{17\,\text{Cos}[d\,x]\,\text{Sin}[c]}{56\,d}+\frac{127\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{1440\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{56\,d}+\frac{\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{576\,d}+\right.$$

$$\left.\frac{17\,\text{Cos}[c]\,\text{Sin}[d\,x]}{56\,d}+\frac{127\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{1440\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{56\,d}+\frac{\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{576\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{60\,d}\,19\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^4}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{64\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{136\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{332\,a^4\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{36\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(-\frac{4\,\text{Cot}[c]}{5\,d}+\frac{191\,\text{Cos}[d\,x]\,\text{Sin}[c]}{672\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{20\,d}+\frac{\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{224\,d}+\frac{191\,\text{Cos}[c]\,\text{Sin}[d\,x]}{672\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{20\,d}+\frac{\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{224\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,17\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{5\,d}\,2\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^4}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,6,\,0\right\}$$

$$\frac{56\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{32\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{4\,a^4\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}-$$

$$\frac{8\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(-\frac{(23+33\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{40\,d}+\frac{\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\frac{\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{80\,d}+\frac{\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{8\,d}+\frac{\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{80\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{20\,d}\,7\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^4}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{56\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{32\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{164\,a^4\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{28\,a^3\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(-\frac{(-61+5\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{40\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{40\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,\text{Sin}[c]+20\,\text{Sin}[d\,x])}{120\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(20\,\text{Sin}[c]+99\,\text{Sin}[d\,x])}{120\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20\,d}\,7\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^4}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{64\,a^4\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{136\,a^4\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{332\,a^4\,\text{Sin}[c+d\,x]}{105\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{64\,a^4\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{36\,a^3\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8$$

$$\left(\frac{8\,\text{Csc}[2\,c]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{56\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,\text{Sin}[c]+28\,\text{Sin}[d\,x])}{280\,d}+\right.$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(84\,\text{Sin}[c]+235\,\text{Sin}[d\,x])}{840\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(235\,\text{Sin}[c]+672\,\text{Sin}[d\,x])}{840\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,17\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{5\,d}\,2\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{21\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,a\,d}-\frac{5\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}-$$

$$\frac{5\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{7\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}-\frac{\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{2\,(5+16\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{2\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}-\frac{4\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{2\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}\right)+$$

$$\left(10\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}}{a+a\,\mathrm{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$-\frac{3\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+\frac{5\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}+\frac{5\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d}-\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \sqrt{\text{Cos}[c+d x]}\left(\frac{2(1+2\text{Cos}[c])\text{Csc}[c]}{d}+\frac{4\text{Cos}[d x]\text{Sin}[c]}{3 d}+\frac{2\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]\text{Sin}\left[\frac{d x}{2}\right]}{d}+\frac{4\text{Cos}[c]\text{Sin}[d x]}{3 d}\right)}{a+a\text{Cos}[c+d x]}-$$

$$\left(10\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\text{Csc}[c]\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3 d(a+a\text{Cos}[c+d x])\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d(a+a\text{Cos}[c+d x])}3\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\text{Cos}[c]^2\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2}}{a+a\text{Cos}[c+d x]},x,4,0\right\}$$

$$\frac{3\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a d}-\frac{\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{a d}-\frac{\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{d(a+a\text{Cos}[c+d x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\text{Cos}[c+d\,x]}\left(-\frac{2\,(1+2\,\text{Cos}[c])\,\text{Csc}[c]}{d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}\right)}{a+a\,\text{Cos}[c+d\,x]}+$$

$$\left(2\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{1+\text{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}3\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,4,\,0\right\}$$

$$-\frac{\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+\frac{\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\text{Cos}[c+d\,x]}\left(\frac{2\,\text{Csc}[c]}{d}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}\right)}{a+a\,\text{Cos}[c+d\,x]}-$$

$$\left(2\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])},x,4,0\right\}$$

$$\frac{\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]}{a\,d}+\frac{\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]}{a\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2 \sqrt{\text{Cos}[c+d\,x]}\left(-\frac{2\,\text{Csc}[c]}{d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}\right)}{a+a\,\text{Cos}[c+d\,x]}-$$

$$\left(2\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2 \text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{1+\text{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])},\,x,\,5,\,0\right\}$$

$$-\frac{3\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]}{a\,d}-\frac{\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]}{a\,d}+\frac{3\,\text{Sin}[c+d\,x]}{a\,d\sqrt{\text{Cos}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{d\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\text{Cos}[c+d\,x]}\left(\frac{6}{d\,(-\text{Sin}[c]+\text{Sin}[2\,c])}-\frac{2\,\text{Sec}\left[\frac{3\,c}{2}\right]\left(-3\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+2\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}\right)}{a+a\,\text{Cos}[c+d\,x]}+$$

$$\left(2\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}3\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])},\,x,\,6,\,0\right\}$$

$$\frac{3\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+\frac{5\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}+$$

$$\frac{5\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{3\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{(2+\mathrm{Cos}[c])\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(\mathrm{Sin}[c]-3\,\mathrm{Sin}[d\,x])}{3\,d}+\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}\right)-$$

$$\left(10\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{9/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$\frac{56\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]}{5\,a^2\,d}-\frac{5\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]}{a^2\,d}-\frac{5\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a^2\,d}+$$

$$\frac{56\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a^2\,d}-\frac{\mathrm{Cos}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{3\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(20\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{16\,(5+9\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}-\frac{16\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{4\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\frac{16\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{16\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}112\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{7/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{7\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{10\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+$$

$$\frac{10\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{7\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(40\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(3+4\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}+\frac{8\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{12\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}+\right.$$

$$\left.\frac{8\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,5,\,0\right\}$$

$$\frac{4\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}-\frac{5\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}-\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{5\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(20\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(-\frac{8\,\mathrm{Cot}\left[\frac{c}{2}\right]}{d}-\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}\,8\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\,\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,5,\,0\right\}$$

$$-\frac{\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}-\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(8\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(\frac{4\,\mathrm{Csc}[c]}{d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\,\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,5,\,0\right\}$$

$$\frac{\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}-\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(8\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(-\frac{4\,\mathrm{Csc}[c]}{d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\,\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{4\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}-\frac{5\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+\frac{4\,\mathrm{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{5\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(20\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(\frac{16}{d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{8\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\,\left(-2\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{d\,\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\,\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$\frac{7\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{10\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+\frac{10\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{7\,\mathrm{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{7\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(40\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{2\,(4-27\,\mathrm{Cos}[c]+2\,\mathrm{Cos}[2\,c])\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{3\,d\left(-2\,\mathrm{Sin}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{3\,c}{2}\right]\right)}+\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}+\right.$$

$$\frac{8\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-2\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-21\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+9\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+2\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+10\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{3\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\left(\mathrm{Sin}\left[\frac{c}{2}\right]+3\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]+2\,\mathrm{Sin}\left[\frac{c}{2}-d\,x\right]-2\,\mathrm{Sin}\left[\frac{c}{2}+d\,x\right]\right)}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{11/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{231\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]}{10\,a^3\,d}-\frac{21\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]}{2\,a^3\,d}-\frac{21\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,a^3\,d}+$$

$$\frac{77\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d}-\frac{\mathrm{Cos}[c+d\,x]^{9/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{4\,\mathrm{Cos}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{63\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(84\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{132\,(3+4\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}-\frac{16\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{d}+\frac{8\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\frac{396\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\right.$$

$$\frac{32\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{16\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+\frac{8\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+$$

$$\left.\frac{32\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}462\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{9/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$-\frac{119\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{11\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}+\frac{11\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,a^3\,d}-$$

$$\frac{\mathrm{Cos}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{119\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(44\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(59+60\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{16\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{236\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{76\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{16\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-\frac{76\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{7/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$\frac{49\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}-\frac{13\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-$$

$$\frac{\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{8\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{13\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(52\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(29+20\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}-\frac{116\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{56\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}-\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{56\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$-\frac{9\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}-$$

$$\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{9\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{36\,\mathrm{Csc}[c]}{5\,d}+\frac{36\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{12\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\right.$$

$$\left.\frac{12\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$-\frac{\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{4\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,\mathrm{Csc}[c]}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{16\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\right.$$

$$\left.\frac{16\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$\frac{\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\right.$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$\frac{9\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}-$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{9\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{36\,\mathrm{Csc}[c]}{5\,d}-\frac{36\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\right.$$

$$\left.\frac{8\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$-\frac{49\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}-\frac{13\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}+\frac{49\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{8\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{13\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(52\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{196}{5\,d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\frac{44\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}-\right.$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\,\left(-49\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+20\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+29\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{5\,d\,\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+\frac{44\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{119\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{11\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}+\frac{11\,\mathrm{Sin}[c+d\,x]}{2\,a^3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-\frac{119\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{119\,\mathrm{Sin}[c+d\,x]}{30\,a^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(44\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{2\,(40-417\,\mathrm{Cos}[c]+20\,\mathrm{Cos}[2\,c])\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{15\,d\left(-2\,\mathrm{Sin}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{3\,c}{2}\right]\right)}+\frac{16\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\right.$$

$$\frac{64\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{15\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{5\,d}+\frac{16\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-64\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-357\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+128\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+64\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+165\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{15\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\left(-3\,\mathrm{Sin}\left[\frac{c}{2}\right]+13\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]+5\,\mathrm{Sin}\left[\frac{c}{2}-d\,x\right]-5\,\mathrm{Sin}\left[\frac{c}{2}+d\,x\right]\right)}{15\,d}-$$

$$\left.\frac{64\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Incorrect antiderivative:

$$\left\{\mathrm{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]},\,x,\,4,\,0\right\}$$

$$\frac{5\,\sqrt{a}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{8\,d}+\frac{5\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{8\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{5\,a\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{48\,d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-15\,i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$
$$15\,i\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$15\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$
$$28\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+6\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$
$$\left.\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\mathrm{Cos}[c+d\,x]^{3/2}\sqrt{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$

$$\frac{3\sqrt{a}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{4\,d}+\frac{3\,a\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{2\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$
$$\frac{1}{8\,d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$3\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\sqrt{2}$$
$$\left.\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{a}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{d}+\frac{a\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$
$$\frac{1}{2\,d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$
$$i\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\left.2\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}{\sqrt{\mathrm{Cos}[c+d\,x]}},\ x,\ 1,\ 0\right\}$$

$$\frac{2\sqrt{a}\ \mathrm{ArcTan}\left[\frac{\sqrt{a}\ \mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{d}$$

$$\frac{1}{\sqrt{2}\ d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}$$
$$i\,e^{\frac{i\,d\,x}{2}}\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\ \left(\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]-\right.$$
$$\left.\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\right)$$
$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{e^{-i\,d\,x}\left(\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2},\ x,\ 5,\ 0\right\}$$

$$\frac{11\,a^{3/2}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\ \mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{8\,d}+\frac{11\,a^2\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{8\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{11\,a^2\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{12\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{48\sqrt{2}\ d\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\ a\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\ \mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-33\,i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$
$$33\,i\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$33\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$
$$52\sqrt{2}\ \sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+18\sqrt{2}\ \sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$
$$\left.\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\sqrt{2}\ \sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+d\,x]}\ (a+a\,\mathrm{Cos}[c+d\,x])^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{7\,a^{3/2}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\ \mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{4\,d}+\frac{7\,a^2\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{4\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{2\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-7\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$7\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$7\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+12\,\sqrt{2}$$
$$\left.\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,3,\,0\right\}$$

$$\frac{3\,a^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$3\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\left.2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,3,\,0\right\}$$

$$\frac{2\,a^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,a^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\,\left(i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]-\right.$$
$$i\,\text{Cos}[c+d\,x]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$
$$\left.2\,\sqrt{2}\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2},\,x,\,5,\,0\right\}$$

$$\frac{163\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+\frac{163\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{163\,a^3\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{17\,a^3\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{384\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-489\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$

$$489\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$489\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$800\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$270\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+80\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2},\,x,\,4,\,0\right\}$$

$$\frac{25\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{8\,d}+\frac{25\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{13\,a^3\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{48\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-75\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$

$$75\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$75\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$124\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+30\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\left.\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,3,\,0\right\}$$

$$\frac{19\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{4\,d}+\frac{9\,a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}$$

$$\frac{1}{8\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-19\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$19\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$19\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+20\,\sqrt{2}$$
$$\left.\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,3,\,0\right\}$$

$$\frac{5\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a^3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-5\,i\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-\right.$$
$$5\,i\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$
$$10\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)-$$
$$5\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+6\,\sqrt{2}$$
$$\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$\left.5\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,3,\,0\right\}$$

$$\frac{2\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{14\,a^3\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{1}{6\sqrt{2}\,d\,\text{Cos}[c+d\,x]^{3/2}\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(i\,\text{Cos}\left[\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{d\,x}{2}\right]\right)\left(6\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\text{Cos}[c+d\,x]^2-\right.$$
$$3\,\text{Cos}[2\,(c+d\,x)]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]-$$
$$\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\left(3\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\left(3\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\right.$$
$$\left.\left.\left.\left.4\sqrt{2}\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\left(-3\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{\sqrt{1+\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$
$$-\frac{\sqrt{2}\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{7\,\text{ArcTan}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}}\right]}{4\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{1+\text{Cos}[c+d\,x]}}+\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{1+\text{Cos}[c+d\,x]}}$$
$$\frac{1}{8\sqrt{1+\text{Cos}[c+d\,x]}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(7\,d\,x-7\,i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+8\,i\sqrt{2}\,\text{Log}\left[8\sqrt{2}\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.\right.$$
$$7\,i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-8\,i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Bigg)+$$
$$\left.\frac{4\sqrt{\text{Cos}[c+d\,x]}\left(-2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{\sqrt{1+\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$
$$\frac{\sqrt{2}\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}-\frac{\text{ArcTan}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}}\right]}{d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{1+\text{Cos}[c+d\,x]}}$$
$$\frac{1}{2\sqrt{1+\text{Cos}[c+d\,x]}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}i\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(-i\,d\,x-\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+2\sqrt{2}\,\text{Log}\left[2\sqrt{2}\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.\right.$$
$$\left.\left.\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-2\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{4\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{\sqrt{1+\text{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$-\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]}{d}+\frac{2\ \text{ArcTan}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}\right]}{d}$$

$$\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}\left(1+e^{i\,(c+d\,x)}\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\ \left(d\,x-i\ \text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.$$
$$\left.i\sqrt{2}\ \text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]+i\ \text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\ \text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}},\ x,\ 1,\ 0\right\}$$

$$\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]}{d}$$
$$-\frac{i\left(1+e^{i\,(c+d\,x)}\right)\sqrt{e^{-i\,(c+d\,x)}\ \left(1+e^{2\,i\,(c+d\,x)}\right)}\ \left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \sqrt{1+\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\ \sqrt{1+\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]}{d}+\frac{2\ \text{Sin}[c+d\,x]}{d\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}$$

$$\frac{2\ \text{Cos}\left[\frac{1}{2}\ (c+d\,x)\right]\left(\frac{i\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\ \left(1+e^{2\,i\,(c+d\,x)}\right)\ \left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{\sqrt{2}}+2\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Sin}\left[\frac{1}{2}\ (c+d\,x)\right]\right)}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\ \sqrt{1+\text{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]}{d}+\frac{2\ \text{Sin}[c+d\,x]}{3\,d\ \text{Cos}[c+d\,x]^{3/2}\ \sqrt{1+\text{Cos}[c+d\,x]}}-\frac{2\ \text{Sin}[c+d\,x]}{3\,d\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}$$

$$\left(e^{-\frac{3}{2}\,i\,(c+d\,x)}\ \text{Cos}\left[\frac{1}{2}\ (c+d\,x)\right]\ \left(2\,i\ \left(-1+e^{i\,(c+d\,x)}\right)^3\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ -\right.\right.$$
$$\left.\left.3\,i\sqrt{2}\ \left(1+e^{2\,i\,(c+d\,x)}\right)^2\ \left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\Big/$$
$$\left(6\,d\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Cos}[c+d\,x]^{3/2}\ \sqrt{1+\text{Cos}[c+d\,x]}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{7\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{4\,\sqrt{a}\,d}-\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}-$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(7\,d\,x-7\,i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+8\,i\,\sqrt{2}\,\text{Log}\left[8\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.\right.$$

$$\left.7\,i\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-8\,i\,\sqrt{2}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{4\,\sqrt{\text{Cos}[c+d\,x]}\,\left(-2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 1,\ 0\right\}$$

$$\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}$$

$$-\frac{i\,\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}+\frac{2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(\frac{i\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{\sqrt{2}}+2\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{3\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{9\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-$$

$$\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}3\,i\,\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(-2\,i\,d\,x-2\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.\right.$$
$$3\,\sqrt{2}\,\text{Log}\left[3\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-3\,\sqrt{2}\,\text{Log}\left[-2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Bigg)+$$
$$\left.\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}-\frac{5\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$
$$\left(-2\,i\,\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(2\,\sqrt{2}\,d\,x+\right.\right.$$
$$\left.5\,i\,\text{Log}\left[5\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,\sqrt{2}\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\text{Log}\left[-2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-$$
$$\left.\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\right.$$
$$\left(-i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\left.\left.\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/\left(d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{3\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(3\,i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/\left(d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}-\frac{43\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{11\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\left(e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(32\,d\,x-32\,i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+43\,i\,\sqrt{2}\,\text{Log}\left[43\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,\text{Log}\left[-2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\Big/\left(4\,\sqrt{2}\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\right)+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\sqrt{\text{Cos}[c+d\,x]}\,\left(-\frac{15\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}-\frac{15\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}+\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{3\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}+\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-3\,i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-\frac{1}{4}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-7\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\right)\Big/$$

$$\left(4\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{5\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{5\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-20\,i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(9\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\right)\Big/\left(16\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{19\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{9\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(76\,i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(17\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\right)\Big/\left(16\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{75\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{13\,\text{Sin}[c+d\,x]}{16\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{49\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{75\,i\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\sqrt{\text{Cos}[c+d\,x]}\,\left(\frac{17\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\,\left(15\,\text{Sin}\left[\frac{c}{2}+d\,x\right]+49\,\text{Sin}\left[\frac{3\,c}{2}+d\,x\right]\right)}{4\,d\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{163\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{\text{Sin}[c+d\,x]}{4\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{17\,\text{Sin}[c+d\,x]}{16\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+$$

$$\frac{95\,\text{Sin}[c+d\,x]}{48\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{299\,\text{Sin}[c+d\,x]}{48\,a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(-\frac{163\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}-\right.$$

$$\left.\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\left(219\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+531\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+707\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+299\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)}{48\,d\,\text{Cos}[c+d\,x]^{3/2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{7/2}\,d}-\frac{177\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}-$$

$$\frac{\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-\frac{17\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{49\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\left(e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\,\left(128\,d\,x-128\,i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+177\,i\,\sqrt{2}\,\text{Log}\left[177\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.\right.$$

$$\left.\left.128\,i\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-177\,i\,\sqrt{2}\,\text{Log}\left[-2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\Big/$$

$$\left(8\,\sqrt{2}\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}\right)+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\,\sqrt{\text{Cos}[c+d\,x]}\,\left(-\frac{247\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{24\,d}+\frac{11\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}-\right.$$

$$\left.\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{247\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{24\,d}+\frac{11\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{5\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}+\frac{\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}+\frac{5\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{5\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\frac{5\,i\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(\mathrm{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]-\mathrm{Log}\left[2\,d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{8\,d\sqrt{1+e^{2i(c+dx)}}\,(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}+$$

$$\frac{1}{(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\sqrt{\mathrm{Cos}[c+dx]}\left(\frac{67\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Sin}\left[\frac{dx}{2}\right]}{24\,d}-\frac{7\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\mathrm{Sin}\left[\frac{dx}{2}\right]}{4\,d}+\right.$$

$$\left.\frac{\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sin}\left[\frac{dx}{2}\right]}{3\,d}+\frac{67\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\mathrm{Tan}\left[\frac{c}{2}\right]}{24\,d}-\frac{7\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Tan}\left[\frac{c}{2}\right]}{4\,d}+\frac{\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{3/2}}{(a+a\,\mathrm{Cos}[c+dx])^{7/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{7\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+dx]}{\sqrt{2}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+a\,\mathrm{Cos}[c+dx]}}\right]}{64\sqrt{2}\,a^{7/2}\,d}-\frac{\mathrm{Cos}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{6\,d\,(a+a\,\mathrm{Cos}[c+dx])^{7/2}}+\frac{7\,\mathrm{Cos}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{48\,a\,d\,(a+a\,\mathrm{Cos}[c+dx])^{5/2}}+\frac{7\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{64\,a^2\,d\,(a+a\,\mathrm{Cos}[c+dx])^{3/2}}$$

$$-\frac{7\,i\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(\mathrm{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]-\mathrm{Log}\left[2\,d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{8\,d\sqrt{1+e^{2i(c+dx)}}\,(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}+$$

$$\frac{1}{(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\sqrt{\mathrm{Cos}[c+dx]}\left(\frac{17\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Sin}\left[\frac{dx}{2}\right]}{24\,d}+\frac{3\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\mathrm{Sin}\left[\frac{dx}{2}\right]}{4\,d}-\right.$$

$$\left.\frac{\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sin}\left[\frac{dx}{2}\right]}{3\,d}+\frac{17\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\mathrm{Tan}\left[\frac{c}{2}\right]}{24\,d}+\frac{3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+dx]}}{(a+a\,\mathrm{Cos}[c+dx])^{7/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{13\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+dx]}{\sqrt{2}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+a\,\mathrm{Cos}[c+dx]}}\right]}{64\sqrt{2}\,a^{7/2}\,d}+\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{6\,d\,(a+a\,\mathrm{Cos}[c+dx])^{7/2}}+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+dx])^{5/2}}-\frac{5\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{192\,a^2\,d\,(a+a\,\mathrm{Cos}[c+dx])^{3/2}}$$

$$-\frac{13\,i\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(\mathrm{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]-\mathrm{Log}\left[2\,d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{8\,d\sqrt{1+e^{2i(c+dx)}}\,(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}+$$

$$\frac{1}{(a\,(1+\mathrm{Cos}[c+dx]))^{7/2}}\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\sqrt{\mathrm{Cos}[c+dx]}\left(-\frac{5\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Sin}\left[\frac{dx}{2}\right]}{24\,d}+\frac{\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\mathrm{Sin}\left[\frac{dx}{2}\right]}{4\,d}+\right.$$

$$\left.\frac{\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sin}\left[\frac{dx}{2}\right]}{3\,d}-\frac{5\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\mathrm{Tan}\left[\frac{c}{2}\right]}{24\,d}+\frac{\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Tan}\left[\frac{c}{2}\right]}{4\,d}+\frac{\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{63\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-$$

$$\frac{5\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{103\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{192\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\frac{63\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{8\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}+$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\sqrt{\text{Cos}[c+d\,x]}\left(-\frac{103\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{24\,d}-\frac{5\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}-\right.$$

$$\left.\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{103\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{24\,d}-\frac{5\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{363\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}-$$

$$\frac{\text{Sin}[c+d\,x]}{6\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-\frac{19\,\text{Sin}[c+d\,x]}{48\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-$$

$$\frac{199\,\text{Sin}[c+d\,x]}{192\,a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{691\,\text{Sin}[c+d\,x]}{192\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7$$

$$\left(\frac{363\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}+\right.$$

$$\left.\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(2099\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+4721\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+3057\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+691\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)}{96\,d\,\sqrt{\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{1015\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}-\frac{\text{Sin}[c+d\,x]}{6\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-\frac{23\,\text{Sin}[c+d\,x]}{48\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{109\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{193\,\text{Sin}[c+d\,x]}{64\,a^3\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{629\,\text{Sin}[c+d\,x]}{64\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(-\frac{1015\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}-\frac{1}{192\,d\,\text{Cos}[c+d\,x]^{3/2}}\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(5622\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+13\,108\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+14\,388\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+8277\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+1887\,\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}}{(a+a\,\text{Cos}[c+d\,x])^{9/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{35\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{1024\,\sqrt{2}\,a^{9/2}\,d}+\frac{\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{8\,d\,(a+a\,\text{Cos}[c+d\,x])^{9/2}}+\frac{7\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{96\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}+\frac{35\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{768\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{35\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{1024\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\frac{35\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^9\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{64\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{9/2}}+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{9/2}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^9\sqrt{\text{Cos}[c+d\,x]}\left(\frac{853\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{192\,d}-\frac{145\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d}+\frac{43\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{24\,d}-\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}+\frac{853\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{192\,d}-\frac{145\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{32\,d}+\frac{43\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Tan}\left[\frac{c}{2}\right]}{24\,d}-\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^{9/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{45\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{1024\,\sqrt{2}\,a^{9/2}\,d}-\frac{\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{8\,d\,(a+a\,\text{Cos}[c+d\,x])^{9/2}}+$$

$$\frac{3\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{32\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}+\frac{15\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{256\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{45\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{1024\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$-\frac{45\,i\,e^{\frac{1}{2}i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^9\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{64\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,(a\,(1+\text{Cos}[c+d\,x]))^{9/2}}+$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{9/2}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^9\sqrt{\text{Cos}[c+d\,x]}\,\left(\frac{73\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d}+\right.$$

$$\frac{33\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d}-\frac{9\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d}+$$

$$\left.\frac{73\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{64\,d}+\frac{33\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{32\,d}-\frac{9\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Tan}\left[\frac{c}{2}\right]}{8\,d}+\frac{\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^7\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a-a\,\text{Cos}[c+d\,x]},\,x,\,3,\,0\right\}$$

$$\frac{3\,\sqrt{-a}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{4\,d}+\frac{3\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}-\frac{a\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{8\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(3\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$

$$3\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$3\,i\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]-4\,\sqrt{2}$$

$$\left.\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}+2\,\sqrt{2}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]},\,x,\,2,\,0\right\}$$

$$-\frac{\sqrt{-a}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$i\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]-$$
$$\left.2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a-a\,\text{Cos}[c+d\,x]}}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,1,\,0\right\}$$

$$\frac{2\,\sqrt{-a}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{d}$$

$$-\frac{1}{\sqrt{2}\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}$$
$$e^{\frac{i\,d\,x}{2}}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]+\right.$$
$$\left.\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{e^{-i\,d\,x}\,\left(\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]\right)}$$

Incorrect antiderivative:

$$\left\{\sqrt{1-\text{Cos}[c+d\,x]}\,\text{Cos}[c+d\,x]^{3/2},\,x,\,3,\,0\right\}$$

$$-\frac{3\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]}}\right]}{4\,d}+\frac{3\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{1-\text{Cos}[c+d\,x]}}-\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{1-\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{8\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,\sqrt{-(-1+\text{Cos}[c+d\,x])\,\text{Cos}[c+d\,x]}\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(3\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$3\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$3\,i\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]-4\,\sqrt{2}$$
$$\left.\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}+2\,\sqrt{2}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]},\,x,\,2,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{1-\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}$$

$$\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$i\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]-$$
$$\left.2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\right)\sqrt{\text{Cos}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{1-\text{Cos}[c+d\,x]}}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,1,\,0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}$$

$$-\frac{1}{d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}$$
$$e^{\frac{i\,d\,x}{2}}\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]+\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{e^{-i\,d\,x}\left(\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]\right)}\,\sqrt{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{\sqrt{1-\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$\frac{7\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]}}\right]}{4\,d}-\frac{\sqrt{2}\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{1-\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}+$$
$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{1-\text{Cos}[c+d\,x]}}+\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{1-\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\sqrt{1-\text{Cos}[c+d\,x]}}\left(\frac{4\sqrt{\text{Cos}[c+d\,x]}\left(2\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Cos}\left[\frac{3}{2}(c+d\,x)\right]\right)}{d}+\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\right.$$
$$\left(-7\,i\,d\,x+7\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+8\sqrt{2}\,\text{Log}\left[8\sqrt{2}\left(-1+e^{i\,(c+d\,x)}\right)\right]+7\,\text{Log}\left[-2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$
$$\left.\left.8\sqrt{2}\,\text{Log}\left[d\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{\sqrt{1-\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$
$$\frac{\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}-\frac{\sqrt{2}\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{2}\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\sqrt{1-\text{Cos}[c+d\,x]}}$$
$$\frac{1}{2\sqrt{1-\text{Cos}[c+d\,x]}}\left(\frac{4\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{\text{Cos}[c+d\,x]}}{d}+\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}\right.$$
$$\sqrt{2}\,e^{\frac{1}{2}i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(-i\,d\,x+\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+2\sqrt{2}\,\text{Log}\left[2\sqrt{2}\left(-1+e^{i\,(c+d\,x)}\right)\right]+\right.$$
$$\left.\left.\text{Log}\left[-2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-2\sqrt{2}\,\text{Log}\left[d\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{\sqrt{1-\text{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$
$$\frac{2\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}-\frac{\sqrt{2}\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{2}\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}$$
$$-\left(i\left(-1+e^{i\,(c+d\,x)}\right)\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\right.$$
$$\left(-i\,d\,x+\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{2}\,\text{Log}\left[\sqrt{2}\left(-1+e^{i\,(c+d\,x)}\right)\right]+\text{Log}\left[-2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$
$$\left.\left.\sqrt{2}\,\text{Log}\left[d\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\Big/\left(\sqrt{2}\,d\sqrt{1+e^{2\,i\,(c+d\,x)}}\sqrt{1-\text{Cos}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 1,\ 0\right\}$$
$$-\frac{\sqrt{2}\,\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{2}\sqrt{1-\text{Cos}[c+d\,x]}\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}$$
$$-\frac{i\,e^{-i\,(c+d\,x)}\left(-1+e^{i\,(c+d\,x)}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\left(\text{Log}\left[\sqrt{2}\left(-1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{\sqrt{2}\,d\sqrt{-(-1+\text{Cos}[c+d\,x])\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1-\text{Cos}[c+d\,x]}\;\text{Cos}[c+d\,x]^{3/2}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\sqrt{2}\;\text{ArcTanh}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{2}\;\sqrt{1-\text{Cos}[c+d\,x]}\;\sqrt{\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,\text{Sin}[c+d\,x]}{d\,\sqrt{1-\text{Cos}[c+d\,x]}\;\sqrt{\text{Cos}[c+d\,x]}}$$

$$\left(e^{-\frac{1}{2}i\,(c+d\,x)}\left(2\left(1+e^{i\,(c+d\,x)}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}+\sqrt{2}\left(1+e^{2\,i\,(c+d\,x)}\right)\text{Log}\left[\sqrt{2}\left(-1+e^{i\,(c+d\,x)}\right)\right]-\right.\right.$$
$$\left.\left.\sqrt{2}\left(1+e^{2\,i\,(c+d\,x)}\right)\text{Log}\left[2\,d\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\Big/$$
$$\left(d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\sqrt{-(-1+\text{Cos}[c+d\,x])\,\text{Cos}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1-\text{Cos}[x]}\;\sqrt{\text{Cos}[x]}},\ x,\ 1,\ 0\right\}$$

$$-\sqrt{2}\;\text{ArcTanh}\left[\frac{\text{Sin}[x]}{\sqrt{2}\;\sqrt{1-\text{Cos}[x]}\;\sqrt{\text{Cos}[x]}}\right]$$

$$\frac{1}{\sqrt{-(-1+\text{Cos}[x])\,\text{Cos}[x]}}$$

$$\text{Cos}\left[\frac{x}{4}\right]^2\left(\text{Log}\left[\text{Tan}\left[\frac{x}{4}\right]^2\right]-\text{Log}\left[2\left(1+\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}-3\,\text{Tan}\left[\frac{x}{4}\right]^2\right)\right]+\text{Log}\left[2\left(-3+\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}+\text{Tan}\left[\frac{x}{4}\right]^2\right)\right]\right)$$
$$\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}\;\text{Sin}\left[\frac{x}{2}\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[x]}\;\sqrt{a-a\,\text{Cos}[x]}},\ x,\ 1,\ 0\right\}$$

$$-\frac{\sqrt{2}\;\text{ArcTan}\left[\frac{\sqrt{-a}\;\text{Sin}[x]}{\sqrt{2}\;\sqrt{\text{Cos}[x]}\;\sqrt{a-a\,\text{Cos}[x]}}\right]}{\sqrt{-a}}$$

$$\frac{2\,\sqrt{\text{Cos}[x]}\left(\text{Log}\left[\text{Tan}\left[\frac{x}{4}\right]^2\right]-\text{Log}\left[2\left(1+\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}-3\,\text{Tan}\left[\frac{x}{4}\right]^2\right)\right]+\text{Log}\left[2\left(-3+\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}+\text{Tan}\left[\frac{x}{4}\right]^2\right)\right]\right)\text{Tan}\left[\frac{x}{4}\right]}{\sqrt{a-a\,\text{Cos}[x]}\;\sqrt{\text{Cos}[x]\,\text{Sec}\left[\frac{x}{4}\right]^4}}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{\sqrt{a-a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{7\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{4\,\sqrt{-a}\,d}-\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{-a}\,d}+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}+\frac{\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

$$\left(\frac{4\,\sqrt{\text{Cos}[c+d\,x]}\,\left(2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d}+\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\right.$$

$$\left(-7\,i\,d\,x+7\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+8\,\sqrt{2}\,\text{Log}\left[8\,\sqrt{2}\,\left(-1+e^{i\,(c+d\,x)}\right)\right]+7\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$

$$\left.\left.8\,\sqrt{2}\,\text{Log}\left[d\,\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\right)\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}},\,x,\,1,\,0\right\}$$

$$-\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{-a}\,d}$$

$$-\frac{i\,\left(-1+e^{i\,(c+d\,x)}\right)\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(-1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}},\,x,\,2,\,0\right\}$$

$$-\frac{\sqrt{2}\,\text{ArcTan}\left[\frac{\sqrt{-a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{-a}\,d}+\frac{2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}}$$

$$\left(e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\left(2\,\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}+\sqrt{2}\,\left(1+e^{2\,i\,(c+d\,x)}\right)\,\text{Log}\left[\sqrt{2}\,\left(-1+e^{i\,(c+d\,x)}\right)\right]-\right.\right.$$

$$\left.\left.\sqrt{2}\,\left(1+e^{2\,i\,(c+d\,x)}\right)\,\text{Log}\left[2\,d\,\left(1+e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\Big/$$

$$\left(d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a-a\,\text{Cos}[c+d\,x]}\right)$$

Timed out after 60 seconds:

$$\left\{\text{Cos}[c+d\,x]^{4/3}\,(a+a\,\text{Cos}[c+d\,x])^{1/3},\,x,\,2,\,0\right\}$$

$$\text{Int}\left[\text{Cos}[c+d\,x]^{4/3}\,(a+a\,\text{Cos}[c+d\,x])^{1/3},\,x\right]$$

???

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{7/2},\ x,\ 7,\ 0\}$$

$$-\frac{6\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+$$

$$\frac{6\,a\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}+\frac{2\,a\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}$$

$$a\left(-\frac{1}{15\,d\,\left(-1+e^{2\,i\,c}\right)}2\,i\,\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\left(9\,\left(1+e^{2\,i\,(c+d\,x)}\right)+9\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\left.5\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\left.\frac{(24\,\mathrm{Cos}[d\,x]+3\,\mathrm{Cos}[2\,c+d\,x]+5\,\mathrm{Cos}[c+2\,d\,x]-5\,\mathrm{Cos}[3\,c+2\,d\,x]+9\,\mathrm{Cos}[2\,c+3\,d\,x])\,\mathrm{Csc}[c]\,\mathrm{Sec}[c+d\,x]^{5/2}}{30\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2},\ x,\ 6,\ 0\}$$

$$-\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+$$

$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{d}+\frac{2\,a\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}$$

$$a\left(-\frac{1}{3\,d\,\left(-1+e^{2\,i\,c}\right)}2\,i\,\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\left(3\,\left(1+e^{2\,i\,(c+d\,x)}\right)+3\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\left.e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\left.\frac{(3\,\mathrm{Cos}[c]+\mathrm{Cos}[d\,x]-\mathrm{Cos}[2\,c+d\,x]+3\,\mathrm{Cos}[c+2\,d\,x])\,\mathrm{Csc}[c]\,\mathrm{Sec}[c+d\,x]^{3/2}}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 5,\ 0\}$$

$$-\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+$$

$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{2\,a\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{d}$$

$$-\frac{1}{d}2\,i\,a\,e^{-i\,(c+d\,x)}\left(-1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\left.e^{i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\sqrt{\mathrm{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}\,,\ x,\ 4,\ 0\right\}$$

$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}$$

$$-\frac{1}{d}\,i\,a\,e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}-2\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$
$$\left.2\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\sqrt{\mathrm{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\mathrm{Cos}[c+d\,x]}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+$$
$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$
$$-\frac{1}{6\,d}\,i\,a\,e^{-2\,i\,(c+d\,x)}\left(-1+6\,e^{i\,(c+d\,x)}+6\,e^{3\,i\,(c+d\,x)}+e^{4\,i\,(c+d\,x)}-12\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$
$$\left.4\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\sqrt{\mathrm{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\mathrm{Cos}[c+d\,x]}{\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{6\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+$$
$$\frac{2\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$
$$-\frac{1}{60\,d}\,i\,a\,e^{-3\,i\,(c+d\,x)}\left(-3-10\,e^{i\,(c+d\,x)}+33\,e^{2\,i\,(c+d\,x)}+39\,e^{4\,i\,(c+d\,x)}+\right.$$
$$10\,e^{5\,i\,(c+d\,x)}+3\,e^{6\,i\,(c+d\,x)}-72\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+$$
$$\left.40\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\sqrt{\mathrm{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a+a\,\mathrm{Cos}[c+d\,x]}{\mathrm{Sec}[c+d\,x]^{5/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{6\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+$$
$$\frac{10\,a\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{7\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{10\,a\,\mathrm{Sin}[c+d\,x]}{21\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{840\,d}\,i\,a\,e^{-4\,i\,(c+d\,x)}\left(-15-42\,e^{i\,(c+d\,x)}-130\,e^{2\,i\,(c+d\,x)}+462\,e^{3\,i\,(c+d\,x)}+546\,e^{5\,i\,(c+d\,x)}+130\,e^{6\,i\,(c+d\,x)}+42\,e^{7\,i\,(c+d\,x)}+15\,e^{8\,i\,(c+d\,x)}-1008\,e^{3\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+400\,e^{4\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)\sqrt{\text{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{7/2},\,x,\,7,\,0\right\}$$

$$-\frac{16\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{4\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{16\,a^2\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{4\,a^2\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a^2\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{15}\,a^2\,(1+\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4\left(-\frac{1}{d\,(-1+e^{2\,i\,c})}\,i\,\sqrt{2}\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(12\,(1+e^{2\,i\,(c+d\,x)})+12\,(-1+e^{2\,i\,c})\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+5\,e^{i\,(c+d\,x)}\,(-1+e^{2\,i\,c})\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+\frac{(27\,\text{Cos}[d\,x]+9\,\text{Cos}[2\,c+d\,x]+5\,\text{Cos}[c+2\,d\,x]-5\,\text{Cos}[3\,c+2\,d\,x]+12\,\text{Cos}[2\,c+3\,d\,x])\,\text{Csc}[c]\,\text{Sec}[c+d\,x]^{5/2}}{4\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{5/2},\,x,\,6,\,0\right\}$$

$$-\frac{4\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{8\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{4\,a^2\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}+\frac{2\,a^2\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{3}\,a^2\,(1+\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4\left(-\frac{1}{d\,(-1+e^{2\,i\,c})}\,i\,\sqrt{2}\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(3\,(1+e^{2\,i\,(c+d\,x)})+3\,(-1+e^{2\,i\,c})\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,e^{i\,(c+d\,x)}\,(-1+e^{2\,i\,c})\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+\frac{\sqrt{\text{Sec}[c+d\,x]}\,(6\,\text{Cos}[d\,x]\,\text{Csc}[c]+\text{Tan}[c+d\,x])}{2\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\sqrt{\text{Sec}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{4 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{8 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{2 a^2 \text{Sin}[c+d x]}{3 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(-12 i \text{Cos}[c+d x]+12 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-8 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]+\text{Sin}[2 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2}{\sqrt{\text{Sec}[c+d x]}},x,6,0\right\}$$

$$\frac{16 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{2 a^2 \text{Sin}[c+d x]}{5 d \text{Sec}[c+d x]^{3/2}}+\frac{4 a^2 \text{Sin}[c+d x]}{3 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{30 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(-96 i \text{Cos}[c+d x]+96 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-40 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]+3 \text{Sin}[c+d x]+20 \text{Sin}[2 (c+d x)]+3 \text{Sin}[3 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2}{\text{Sec}[c+d x]^{3/2}},x,7,0\right\}$$

$$\frac{12 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{8 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{7 d}+\frac{2 a^2 \text{Sin}[c+d x]}{7 d \text{Sec}[c+d x]^{5/2}}+\frac{4 a^2 \text{Sin}[c+d x]}{5 d \text{Sec}[c+d x]^{3/2}}+\frac{8 a^2 \text{Sin}[c+d x]}{7 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{140 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(-336 i \text{Cos}[c+d x]+336 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-160 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]+28 \text{Sin}[c+d x]+90 \text{Sin}[2 (c+d x)]+28 \text{Sin}[3 (c+d x)]+5 \text{Sin}[4 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{9/2},x,8,0\right\}$$

$$-\frac{28 a^3 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{52 a^3 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{21 d}+\frac{28 a^3 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{5 d}+\frac{52 a^3 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{21 d}+\frac{32 a^3 \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{35 d}+\frac{2 a^2 (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{7 d}$$

$$\frac{1}{210} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(147 \left(1+e^{2 i (c+d x)}\right)+147 \left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]+65 e^{i (c+d x)} \left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(294 \text{Cos}[d x] \text{Csc}[c]+(80+63 \text{Cos}[c+d x]+65 \text{Cos}[2 (c+d x)]) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]\right)}{2 d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{36 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+\frac{36 a^3 \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{5 d}+\frac{8 a^3 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{5 d}+\frac{2 a^2 (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{10} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(9 \left(1+e^{2 i (c+d x)}\right)+9 \left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]+5 e^{i (c+d x)} \left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]\right)+\frac{\sqrt{\text{Sec}[c+d x]} (18 \text{Cos}[d x] \text{Csc}[c]+(5+\text{Sec}[c+d x]) \text{Tan}[c+d x])}{2 d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{5/2}, x, 6, 0\right\}$$

$$-\frac{4 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+\frac{20 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{16 a^3 \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{3 d}+\frac{2 a^2 (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 d}$$

$$-\frac{1}{3 d} i a^3 \text{Sec}[c+d x]^{3/2} \left(-6-6 \text{Cos}[2 (c+d x)]+6 e^{-2 i (c+d x)} \left(1+e^{2 i (c+d x)}\right)^{3/2} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]+20 \sqrt{1+e^{2 i (c+d x)}}\, \text{Cos}[c+d x]\, \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]+2 i \text{Sin}[c+d x]+9 i \text{Sin}[2 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{3/2}, x, 6, 0\right\}$$

$$\frac{4 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+\frac{20 a^3 \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}-\frac{4 a^3 \text{Sin}[c+d x]}{3 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2 (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{d}$$

$$\frac{1}{3\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(-12\,i\,\text{Cos}[c+d\,x]+12\,i\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]-20\,i\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]+6\,\text{Sin}[c+d\,x]+\text{Sin}[2\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\sqrt{\text{Sec}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{36\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{4\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{8\,a^3\,\text{Sin}[c+d\,x]}{5\,d\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{10\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(-72\,i\,\text{Cos}[c+d\,x]+72\,i\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]-40\,i\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]+\text{Sin}[c+d\,x]+10\,\text{Sin}[2\,(c+d\,x)]+\text{Sin}[3\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{28\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{52\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{32\,a^3\,\text{Sin}[c+d\,x]}{35\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{52\,a^3\,\text{Sin}[c+d\,x]}{21\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{420\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(-2352\,i\,\text{Cos}[c+d\,x]+2352\,i\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]-1040\,i\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]+126\,\text{Sin}[c+d\,x]+550\,\text{Sin}[2\,(c+d\,x)]+126\,\text{Sin}[3\,(c+d\,x)]+15\,\text{Sin}[4\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$\frac{68\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{44\,a^3\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{40\,a^3\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a^2\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{68\,a^3\,\text{Sin}[c+d\,x]}{45\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{44\,a^3\,\text{Sin}[c+d\,x]}{21\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2520\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(-11\,424\,i\,\text{Cos}[c+d\,x]+11\,424\,i\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]-5280\,i\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]+1022\,\text{Sin}[c+d\,x]+3180\,\text{Sin}[2\,(c+d\,x)]+1057\,\text{Sin}[3\,(c+d\,x)]+270\,\text{Sin}[4\,(c+d\,x)]+35\,\text{Sin}[5\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\}$$

$$-\frac{64\,a^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+\frac{136\,a^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{64\,a^4\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{5\,d}+\frac{332\,a^4\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{36\,a^3\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,d}+\frac{2\,a^2\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,d}$$

$$-\frac{1}{105\,\sqrt{2}\ d\left(-1+e^{2\,i\,c}\right)}\,i\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ (a+a\,\mathrm{Cos}[c+d\,x])^4$$

$$\left(168\left(1+e^{2\,i\,(c+d\,x)}\right)+168\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\left.85\,e^{i\,(c+d\,x)}\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8+$$

$$(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\sqrt{\mathrm{Sec}[c+d\,x]}\ \left(\frac{4\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}[c]}{5\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Sin}[d\,x]}{56\,d}+\right.$$

$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,(5\,\mathrm{Sin}[c]+28\,\mathrm{Sin}[d\,x])}{280\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(84\,\mathrm{Sin}[c]+235\,\mathrm{Sin}[d\,x])}{840\,d}+\frac{47\,\mathrm{Tan}[c]}{168\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^{7/2},\ x,\ 7,\ 0\}$$

$$-\frac{56\,a^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+$$

$$\frac{32\,a^4\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+\frac{164\,a^4\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{15\,d}+$$

$$\frac{28\,a^3\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,d}+\frac{2\,a^2\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{30}\,a^4\,(1+\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8$$

$$\left(-\frac{1}{d\left(-1+e^{2\,i\,c}\right)}\,i\,\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \left(21\left(1+e^{2\,i\,(c+d\,x)}\right)+21\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\right.\right.\right.$$

$$\left.\left.\frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+20\,e^{i\,(c+d\,x)}\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+\frac{1}{32\,d}$$

$$(363\,\mathrm{Cos}[d\,x]+141\,\mathrm{Cos}[2\,c+d\,x]+40\,\mathrm{Cos}[c+2\,d\,x]-40\,\mathrm{Cos}[3\,c+2\,d\,x]+183\,\mathrm{Cos}[2\,c+3\,d\,x]-15\,\mathrm{Cos}[4\,c+3\,d\,x])$$

$$\left.\mathrm{Csc}[c]\,\mathrm{Sec}[c+d\,x]^{5/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 7,\ 0\}$$

$$\frac{56 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{32 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}+$$
$$\frac{4 a^4 \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}}-\frac{8 a^3 (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{5 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2 (a+a \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{d}$$
$$\frac{1}{30 d} a^4 \sqrt{\text{Sec}[c+d x]}\left(-336 i \text{Cos}[c+d x]+336 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]-\right.$$
$$\left.320 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]+63 \text{Sin}[c+d x]+40 \text{Sin}[2 (c+d x)]+3 \text{Sin}[3 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^4 \sqrt{\text{Sec}[c+d x]}, x, 7, 0\right\}$$

$$\frac{64 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{136 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+$$
$$\frac{332 a^4 \text{Sin}[c+d x]}{105 d \sqrt{\text{Sec}[c+d x]}}+\frac{36 a^3 (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2 (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d \sqrt{\text{Sec}[c+d x]}}$$
$$\frac{1}{420 d} a^4 \sqrt{\text{Sec}[c+d x]}\left(-5376 i \text{Cos}[c+d x]+5376 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]-\right.$$
$$2720 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]+$$
$$\left.168 \text{Sin}[c+d x]+970 \text{Sin}[2 (c+d x)]+168 \text{Sin}[3 (c+d x)]+15 \text{Sin}[4 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^4}{\sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{152 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+\frac{32 a^4 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{7 d}+$$
$$\frac{188 a^4 \text{Sin}[c+d x]}{105 d \text{Sec}[c+d x]^{3/2}}+\frac{44 a^3 (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{63 d \text{Sec}[c+d x]^{3/2}}+\frac{2 a^2 (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{9 d \text{Sec}[c+d x]^{3/2}}+\frac{32 a^4 \text{Sin}[c+d x]}{7 d \sqrt{\text{Sec}[c+d x]}}$$
$$\frac{1}{2520 d} a^4 \sqrt{\text{Sec}[c+d x]}\left(-25536 i \text{Cos}[c+d x]+25536 i e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]-\right.$$
$$11520 i \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]+1778 \text{Sin}[c+d x]+$$
$$\left.6480 \text{Sin}[2 (c+d x)]+1813 \text{Sin}[3 (c+d x)]+360 \text{Sin}[4 (c+d x)]+35 \text{Sin}[5 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{5/2}}{a+a \text{Cos}[c+d x]}, x, 7, 0\right\}$$

$$\frac{3 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a d}+\frac{5 \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 a d}-$$
$$\frac{3 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{a d}+\frac{5 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 a d}-\frac{\text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$
$$\left(\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}2\,i\,\sqrt{2}\;e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\left(9\,\left(1+e^{2\,i\,(c+d\,x)}\right)+9\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\right.\right.$$
$$\left.\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]-5\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{4},\,\frac{1}{2},\,\frac{5}{4},\,-e^{2\,i\,(c+d\,x)}\right]\Bigg)+$$
$$\left.\frac{\sqrt{\text{Sec}[c+d\,x]}\;\left(-18\,\text{Cos}[d\,x]\,\text{Csc}[c]+\text{Sec}[c+d\,x]\,\left(5\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{3/2}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$
$$-\frac{3\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-$$
$$\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+\frac{3\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{a\,d}-\frac{\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{2\,a\,d}\,i\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Sec}[c+d\,x]}\;\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left(-2-4\,\text{Cos}[c+d\,x]+3\,e^{-i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]-\right.$$
$$\left.\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{4},\,\frac{1}{2},\,\frac{5}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,i\,\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$
$$\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$
$$\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$-\frac{1}{a\,d\,\left(1+e^{i\,(c+d\,x)}\right)^3}4\,i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\left(1+e^{2\,i\,(c+d\,x)}-\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+\right.$$
$$\left.e^{i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{4},\,\frac{1}{2},\,\frac{5}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)\,\sqrt{\text{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$-\frac{\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}e^{-i\,(2\,c+d\,x)}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(-i\left(-2\,\text{Cos}[c+d\,x]+e^{-i\,(c+d\,x)}\left(1+e^{i\,(c+d\,x)}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+\right.$$
$$\left.\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right](1+\text{Cos}[c+d\,x]+i\,\text{Sin}[c+d\,x])\right)\left(\text{Cos}\left[\frac{1}{2}(3\,c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}(3\,c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}},x,5,0\right\}$$
$$\frac{3\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-\frac{\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2$$
$$\left(\frac{1}{d\left(-1+e^{2\,i\,c}\right)}2\,i\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(3\left(1+e^{2\,i\,(c+d\,x)}\right)+3\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\right.\right.\right.$$
$$\left.\left.\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+e^{i\,(c+d\,x)}\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$
$$\left.\frac{\left(\text{Cos}\left[\frac{1}{2}(c-d\,x)\right]+2\,\text{Cos}\left[\frac{1}{2}(3\,c+d\,x)\right]+2\,\text{Cos}\left[\frac{1}{2}(c+3\,d\,x)\right]+\text{Cos}\left[\frac{1}{2}(5\,c+3\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}},x,6,0\right\}$$
$$-\frac{3\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+\frac{5\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}}+\frac{5\,\text{Sin}[c+d\,x]}{3\,a\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$
$$\left(-\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}2\,i\,\sqrt{2}\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(9\,\left(1+e^{2\,i\,(c+d\,x)}\right)+9\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+5\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+\frac{1}{d}\,2\,\sqrt{\text{Sec}[c+d\,x]}\left(3\,(2+\text{Cos}[2\,c])\,\text{Cos}[d\,x]\,\text{Csc}[c]+\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]-3\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sin}\left[\frac{d\,x}{2}\right]-6\,\text{Cos}[c]\,\text{Sin}[d\,x]+\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]-3\,\text{Tan}\left[\frac{c}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}},\,x,\,7,\,0\right\}$$
$$\frac{21\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}-\frac{5\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-\frac{\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}+\frac{7\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}-\frac{5\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$
$$\left(\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}2\,i\,\sqrt{2}\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(63\,\left(1+e^{2\,i\,(c+d\,x)}\right)+63\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+25\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-\frac{1}{4\,d}\left(93\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+159\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+163\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+89\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+7\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]-7\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]-3\,\text{Cos}\left[\frac{1}{2}\,(5\,c+7\,d\,x)\right]+3\,\text{Cos}\left[\frac{1}{2}\,(9\,c+7\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,8,\,0\right\}$$
$$\frac{7\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,d}+\frac{10\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{7\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a^2\,d}+\frac{10\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{7\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(21\left(1+e^{2 i (c+d x)}\right)+21\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-10 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{d}\sqrt{\text{Sec}[c+d x]}\left(-84\,\text{Cos}[d x]\,\text{Csc}[c]+\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\text{Sec}[c+d x]\left(\text{Sin}\left[\frac{1}{2}(c+d x)\right]+8\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+5\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{3/2}}{(a+a\,\text{Cos}[c+d x])^2}, x, 7, 0\right\}$$

$$-\frac{4\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}-\frac{5\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 a^2 d}+\frac{4\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{a^2 d}-\frac{\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2}-\frac{5\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{3 a d (a+a\,\text{Cos}[c+d x])}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(12\left(1+e^{2 i (c+d x)}\right)+12\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{2 d}\left(29\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+19\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+31\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+12\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d x]}}{(a+a\,\text{Cos}[c+d x])^2}, x, 6, 0\right\}$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}+\frac{2\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 a^2 d}-\frac{\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}-\frac{\text{Sin}[c+d x]}{a d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(3\left(1+e^{2 i (c+d x)}\right)+3\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-2 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{2 d}\left(5\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+7\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+7\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+2\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{3/2}}, x, 6, 0\right\}$$

$$-\frac{\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}+\frac{2\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{3 a^2 d}-\frac{\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}+\frac{\text{Sin}[c+d x]}{a d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(3\left(1+e^{2 i (c+d x)}\right)+3\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+2 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{2 d}\left(7\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+4\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}}, x, 6, 0\right\}$$

$$\frac{4\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}-\frac{5\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{3 a^2 d}-\frac{\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{3/2}}-\frac{5\,\text{Sin}[c+d x]}{3 a d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(12\left(1+e^{2 i (c+d x)}\right)+12\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{2 d}\left(25\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+23\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+20\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+16\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+9\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{7/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{7\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}+\frac{10\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 a^2 d}-\frac{\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}}-\frac{7\,\text{Sin}[c+d x]}{3 a d (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}}+\frac{10\,\text{Sin}[c+d x]}{3 a^2 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(21\left(1+e^{2 i (c+d x)}\right)+21\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+10 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{4 d}\left(87\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+81\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+73\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+53\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+33\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+9\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{9/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{56\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 a^2 d}-\frac{5\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}-\frac{\text{Sin}[c+d x]}{3 d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{7/2}}-\frac{3\,\text{Sin}[c+d x]}{a d (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}}+\frac{56\,\text{Sin}[c+d x]}{15 a^2 d\,\text{Sec}[c+d x]^{3/2}}-\frac{5\,\text{Sin}[c+d x]}{a^2 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5 a^2 (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^4 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(56\left(1+e^{2 i (c+d x)}\right)+56\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+25 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{24 d}\left(1378\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+1310\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+1156\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+860\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+504\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+168\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+11\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-11\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]-3\,\text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(11 c+9 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{5/2}}{(a+a\,\text{Cos}[c+d x])^3}, x, 9, 0\right\}$$

$$\frac{119\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+\frac{11\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{2 a^3 d}-\frac{119\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{10 a^3 d}+\frac{11\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{2 a^3 d}-\frac{\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3}-\frac{2\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 a d (a+a\,\text{Cos}[c+d x])^2}-\frac{119\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{30 a^2 d (a+a\,\text{Cos}[c+d x])}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(119\left(1+e^{2 i (c+d x)}\right)+119\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-55 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{48 d}\left(5134\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+4148\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+4664\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+2476\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+3340\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+944\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+1620\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]+165\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]+357\,\text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\text{Sec}[c+d x]^{3/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{3/2}}{(a+a\,\text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{49\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}-\frac{13\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{6 a^3 d}+\frac{49\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{10 a^3 d}-\frac{\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3}-\frac{8\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{15 a d (a+a\,\text{Cos}[c+d x])^2}-\frac{13\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{6 a^2 d (a+a\,\text{Cos}[c+d x])}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$
$$\left(-\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}4\,i\,\sqrt{2}\;e^{-i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\left(147\,\left(1+e^{2\,i\,(c+d\,x)}\right)+147\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\right.\right.\right.$$
$$\left.\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]-65\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{4},\,\frac{1}{2},\,\frac{5}{4},\,-e^{2\,i\,(c+d\,x)}\right]\Bigg)+$$
$$\frac{1}{8\,d}\left(1284\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+921\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+1243\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+374\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+\right.$$
$$\left.670\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]+65\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]+147\,\text{Cos}\left[\frac{1}{2}\,(5\,c+7\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$
$$\frac{9\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{2\,a^3\,d}-$$
$$\frac{\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{2\,\text{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{9\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{5\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$
$$\left(\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}4\,i\,\sqrt{2}\;e^{-i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\left(9\,\left(1+e^{2\,i\,(c+d\,x)}\right)+9\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\right.\right.\right.$$
$$\left.\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]-5\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[\frac{1}{4},\,\frac{1}{2},\,\frac{5}{4},\,-e^{2\,i\,(c+d\,x)}\right]\Bigg)-$$
$$\frac{1}{8\,d}\left(68\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+67\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+71\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+28\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+\right.$$
$$\left.40\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]+5\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]+9\,\text{Cos}\left[\frac{1}{2}\,(5\,c+7\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$
$$\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+\frac{\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}+$$
$$\frac{\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(3\left(1+e^{2 i (c+d x)}\right)+3\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{8 d}\left(36\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+9\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+7\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+26\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+10\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{3/2}}, x, 7, 0\right\}$$

$$-\frac{\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+\frac{\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{6 a^3 d}-\frac{\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\sqrt{\text{Sec}[c+d x]}}+\frac{4\,\text{Sin}[c+d x]}{15 a d (a+a\,\text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}+\frac{\text{Sin}[c+d x]}{10 a^2 d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(3\left(1+e^{2 i (c+d x)}\right)+3\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{8 d}\left(36\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+9\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+17\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+16\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+20\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-5\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+3\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{5/2}}, x, 7, 0\right\}$$

$$-\frac{9\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+\frac{\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{2 a^3 d}-\frac{\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{3/2}}-\frac{2\,\text{Sin}[c+d x]}{5 a d (a+a\,\text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}+\frac{9\,\text{Sin}[c+d x]}{10 a^2 d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(9\left(1+e^{2 i (c+d x)}\right)+9\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{8 d}\left(68\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+67\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+61\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+38\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+30\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+15\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+9\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}}, x, 7, 0\right\}$$

$$\frac{49\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}-\frac{13\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{6 a^3 d}-\frac{\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{5/2}}-\frac{8\,\text{Sin}[c+d x]}{15 a d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{3/2}}-\frac{13\,\text{Sin}[c+d x]}{6 a^2 d (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(147\left(1+e^{2 i (c+d x)}\right)+147\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+65 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{8 d}\left(1134\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+1071\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+923\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+694\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+470\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+265\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+117\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]+30\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{9/2}}, x, 8, 0\right\}$$

$$-\frac{119\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+\frac{11\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{2 a^3 d}-\frac{\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}}-\frac{2\,\text{Sin}[c+d x]}{3 a d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}}-\frac{119\,\text{Sin}[c+d x]}{30 a^2 d (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}}+\frac{11\,\text{Sin}[c+d x]}{2 a^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d\left(-1+e^{2 i c}\right)} 4 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(119\left(1+e^{2 i (c+d x)}\right)+119\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+55 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)+\frac{1}{24 d}\left(2774\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+2581\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+2253\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+1674\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+1170\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+615\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+292\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]+65\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right]-5\,\text{Cos}\left[\frac{1}{2}(11 c+9 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{11/2}}, x, 9, 0\right\}$$

$$\frac{231\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}-\frac{21\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{2 a^3 d}-\frac{\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{9/2}}-\frac{4\,\text{Sin}[c+d x]}{5 a d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{7/2}}-\frac{63\,\text{Sin}[c+d x]}{10 a^2 d (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}}+\frac{77\,\text{Sin}[c+d x]}{10 a^3 d\,\text{Sec}[c+d x]^{3/2}}-\frac{21\,\text{Sin}[c+d x]}{2 a^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(\frac{1}{d\left(-1+e^{2 i c}\right)} 84 i \sqrt{2}\, e^{-i (c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \left(11\left(1+e^{2 i (c+d x)}\right)+11\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+5 e^{i (c+d x)}\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]\right)-\frac{1}{16 d}\left(3590\,\text{Cos}\left[\frac{1}{2}(c-d x)\right]+3340\,\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+2900\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+2182\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+1505\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+805\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+369\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]+93\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]+5\,\text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right]-5\,\text{Cos}\left[\frac{1}{2}(11 c+9 d x)\right]-\text{Cos}\left[\frac{1}{2}(9 c+11 d x)\right]+\text{Cos}\left[\frac{1}{2}(13 c+11 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}, x, 2, 0\right\}$$

$$\frac{2\sqrt{a}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{d}$$

$$\left(i\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\right)\Big/\left(\sqrt{2}\;d\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{a}\;\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{a\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2\sqrt{2}\;d\,\sqrt{\text{Sec}[c+d\,x]}\;\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-i\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\left.2\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}}{\text{Sec}[c+d\,x]^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{3\sqrt{a}\;\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{4\,d}+$$
$$\frac{a\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}}+\frac{3\,a\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\sqrt{2}\;d\,\sqrt{\text{Sec}[c+d\,x]}\;\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$3\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+4\sqrt{2}$$
$$\left.\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,a^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}\,a\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\left(i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\text{Cos}[c+d\,x]-\right.$$
$$i\,\text{Cos}[c+d\,x]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$
$$\left.2\,\sqrt{2}\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]},\ x,\ 4,\ 0\right\}$$

$$\frac{3\,a^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{a^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2\,\sqrt{2}\,d\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$3\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\left.2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{7\,a^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{4\,d}+$$
$$\frac{a^2\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{7\,a^2\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,\sqrt{2}\,d\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-7\,i\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$7\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$7\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+12\,\sqrt{2}$$
$$\left.\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}{\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{11\,a^{3/2}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{8\,d}+$$

$$\frac{a^2\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{11\,a^2\,\mathrm{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{11\,a^2\,\mathrm{Sin}[c+d\,x]}{8\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{48\sqrt{2}\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-33\,i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$

$$33\,i\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$33\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$52\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+18\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\left.\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{5/2},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,a^{5/2}\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+$$

$$\frac{14\,a^3\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,a^2\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{12\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\,a^2\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Sec}[c+d\,x]^{3/2}$$

$$\left(2\,i\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]-2\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)\left(6\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\mathrm{Cos}[c+d\,x]^2-\right.$$

$$3\,\mathrm{Cos}[2\,(c+d\,x)]\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]-$$

$$\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]-i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)\left(3\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$

$$i\left(3\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\right.$$

$$\left.\left.\left.4\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\left(-3\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{5 a^{5/2} \text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{d} - \frac{a^3\,\text{Sin}[c+d x]}{d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}} + \frac{2 a^2\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{d}$$

$$\frac{1}{4 d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}}\, a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]\sqrt{\text{Sec}[c+d x]}$$

$$\left(-5 i\,\text{Cos}\left[c+\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right] - 5 i\,\text{Cos}\left[c+\frac{3 d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right] + 10 i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\text{Cos}[c+d x]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right) - 5\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{d x}{2}\right] + 6\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right] + 2\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right] + 5\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{3 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{5/2}\sqrt{\text{Sec}[c+d x]},\ x,\ 4,\ 0\right\}$$

$$\frac{19 a^{5/2}\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{4 d} + \frac{9 a^3\,\text{Sin}[c+d x]}{4 d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}} + \frac{a^2\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{8\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\, a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-19 i\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right] + 19 i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right) + 19\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right] + 20\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right] + 2\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d x])^{5/2}}{\sqrt{\text{Sec}[c+d x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{25 a^{5/2}\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{8 d} + \frac{13 a^3\,\text{Sin}[c+d x]}{12 d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}} + \frac{a^2\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 d\,\text{Sec}[c+d x]^{3/2}} + \frac{25 a^3\,\text{Sin}[c+d x]}{8 d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{48\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-75\,i\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$75\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$75\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$124\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+30\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\left.\text{Sin}\left[\frac{3}{2}(c+d x)\right]+4\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d x])^{5/2}}{\text{Sec}[c+d x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{163\,a^{5/2}\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{64\,d}+\frac{17\,a^3\,\text{Sin}[c+d x]}{24\,d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{a^2\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{4\,d\,\text{Sec}[c+d x]^{5/2}}+\frac{163\,a^3\,\text{Sin}[c+d x]}{96\,d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}}+\frac{163\,a^3\,\text{Sin}[c+d x]}{64\,d\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-489\,i\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$489\,i\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$489\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$800\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$270\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+80\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}(c+d x)\right]+12\sqrt{2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{3/2}}{\sqrt{1+\text{Cos}[c+d x]}},\ x,\ 3,\ 0\right\}$$

$$-\frac{\sqrt{2}\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{d}+\frac{2\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{d\sqrt{1+\text{Cos}[c+d x]}}$$

$$\frac{1}{2\,d\sqrt{1+\text{Cos}[c+d x]}}i\,e^{-i(c+d x)}\left(1+e^{i(c+d x)}\right)$$
$$\frac{\left(2-2\,e^{i(c+d x)}+\sqrt{2}\sqrt{1+e^{2 i(c+d x)}}\,\text{Log}\left[\sqrt{2}\left(1+e^{i(c+d x)}\right)\right]-\sqrt{2}\sqrt{1+e^{2 i(c+d x)}}\,\text{Log}\left[2\,d\left(1-e^{i(c+d x)}+\sqrt{2}\sqrt{1+e^{2 i(c+d x)}}\right)\right]\right)}{\sqrt{\text{Sec}[c+d x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{1+\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{d}$$

$$-\frac{2\,i\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Cos}\left[\frac{1}{2}\ (c+d\,x)\right]\left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\sqrt{1+\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1+\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,\text{ArcTan}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{d}$$

$$\frac{1}{d\sqrt{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{2}\ e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Cos}\left[\frac{1}{2}\ (c+d\,x)\right]\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\ \text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$
$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,\sqrt{2}\ \text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1+\text{Cos}[c+d\,x]}\ \text{Sec}[c+d\,x]^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{\sqrt{2}\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\ (c+d\,x)\right]\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{d}-$$
$$\frac{\text{ArcTan}\left[\frac{\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{1+\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{\text{Sin}[c+d\,x]}{d\sqrt{1+\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2\sqrt{1+\text{Cos}[c+d\,x]}}\ \text{Cos}\left[\frac{1}{2}\ (c+d\,x)\right]$$
$$\left(-\frac{1}{d}i\,\sqrt{2}\ e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \left(-i\,d\,x-\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+2\,\sqrt{2}\ \text{Log}\left[2\,\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]+\right.\right.$$
$$\left.\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-2\,\sqrt{2}\ \text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$
$$\left.\frac{2\,\sqrt{\text{Sec}[c+d\,x]}\ \left(-\text{Sin}\left[\frac{1}{2}\ (c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\ (c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{2}\ \text{ArcTan}\left[\frac{\sqrt{a}\ \text{Sin}[c+d\,x]}{\sqrt{2}\ \sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\ d}$$

$$-\frac{2\,i\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{3\,\text{ArcTan}\left[\frac{\sqrt{a}\ \text{Sin}[c+d\,x]}{\sqrt{2}\ \sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\ a^{3/2}\,d}-\frac{\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$
$$\left(-3\,i\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\left.\frac{1}{2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\text{Sec}[c+d\,x]}\ \left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTan}\left[\frac{\sqrt{a}\ \text{Sin}[c+d\,x]}{\sqrt{2}\ \sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\ a^{3/2}\,d}+\frac{\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$-\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,i\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$
$$\left(\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\ \left(\text{Log}\left[\sqrt{2}\ \left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\ \sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\left.\frac{1}{2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\text{Sec}[c+d\,x]}\ \left(-i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{3/2}\,d}-$$

$$\frac{5\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\left(-2\,i\,\sqrt{2}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(2\,\sqrt{2}\,d\,x+\right.\right.$$

$$\left.5\,i\,\text{Log}\left[5\,\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,\sqrt{2}\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\text{Log}\left[-2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{1}{2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{75\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{13\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{49\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(75\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$

$$\frac{1}{8}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(56\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+121\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+49\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,4,\,0\right\}$$

$$\frac{19\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{9\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(-19\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\frac{1}{8}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left.\left(8\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-17\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-9\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,4,\,0\right\}$$
$$\frac{5\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$
$$\frac{\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{5\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(-5\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\frac{1}{8}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left.\left(-8\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,4,\,0\right\}$$
$$\frac{3\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}+$$
$$\frac{\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{3\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(-3\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\frac{1}{8}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left.\left(8\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+7\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\,x,\,7,\,0\right\}$$

$$\frac{1015\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,\sqrt{2}\,a^{7/2}\,d}-\frac{629\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,a^3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-\frac{23\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{109\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{193\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{64\,a^3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{24\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}$$
$$\left(-3045\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$256\,e^{\frac{1}{2}i\,(c+d\,x)}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\frac{1}{32}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left.\left(6879\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+13\,781\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+8533\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+1887\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{363\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,\sqrt{2}\,a^{7/2}\,d}-\frac{\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}-$$
$$\frac{19\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{199\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{192\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{691\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{192\,a^3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{24 a^4 d (1+\text{Cos}[c+d x])^4} e^{-\frac{1}{2} i (c+d x)} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^7 \sqrt{a (1+\text{Cos}[c+d x])}$$
$$\left(1089 i \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \sqrt{1+e^{2 i (c+d x)}} \left(\text{Log}\left[\sqrt{2}\left(1+e^{i (c+d x)}\right)\right]-\text{Log}\left[2 d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]\right)+\right.$$
$$\frac{1}{32}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \sqrt{\text{Sec}[c+d x]}\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+i\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$
$$\left.\left(2099\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+4721\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+3057\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+691\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d x]}}{(a+a\,\text{Cos}[c+d x])^{7/2}}, x, 5, 0\right\}$$

$$\frac{63\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{64\sqrt{2}\,a^{7/2} d}-\frac{\text{Sin}[c+d x]}{6 d (a+a\,\text{Cos}[c+d x])^{7/2}\sqrt{\text{Sec}[c+d x]}}-$$
$$\frac{5\,\text{Sin}[c+d x]}{16 a d (a+a\,\text{Cos}[c+d x])^{5/2}\sqrt{\text{Sec}[c+d x]}}-\frac{103\,\text{Sin}[c+d x]}{192 a^2 d (a+a\,\text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{24 a^4 d (1+\text{Cos}[c+d x])^4} e^{-\frac{1}{2} i (c+d x)} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^7 \sqrt{a (1+\text{Cos}[c+d x])}$$
$$\left(-189 i \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \sqrt{1+e^{2 i (c+d x)}} \left(\text{Log}\left[\sqrt{2}\left(1+e^{i (c+d x)}\right)\right]-\text{Log}\left[2 d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]\right)+\right.$$
$$\frac{1}{32}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \sqrt{\text{Sec}[c+d x]}\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+i\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$
$$\left.\left(25\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]-557\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]-429\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]-103\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^{7/2}\,\text{Sec}[c+d x]^{3/2}}, x, 5, 0\right\}$$

$$\frac{7\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{64\sqrt{2}\,a^{7/2} d}-\frac{\text{Sin}[c+d x]}{6 d (a+a\,\text{Cos}[c+d x])^{7/2}\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{7\,\text{Sin}[c+d x]}{48 a d (a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{3/2}}+\frac{7\,\text{Sin}[c+d x]}{64 a^2 d (a+a\,\text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{24 a^4 d (1+\text{Cos}[c+d x])^4} e^{-\frac{1}{2} i (c+d x)} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^7 \sqrt{a (1+\text{Cos}[c+d x])}$$
$$\left(-21 i \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \sqrt{1+e^{2 i (c+d x)}} \left(\text{Log}\left[\sqrt{2}\left(1+e^{i (c+d x)}\right)\right]-\text{Log}\left[2 d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]\right)+\right.$$
$$\frac{1}{32}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \sqrt{\text{Sec}[c+d x]}\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+i\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$
$$\left.\left(145\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]-5\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+123\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+17\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^{9/2}\,\text{Sec}[c+d x]^{5/2}}, x, 6, 0\right\}$$
$$\frac{45\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{1024\sqrt{2}\,a^{9/2} d}-$$
$$\frac{\text{Sin}[c+d x]}{8 d (a+a\,\text{Cos}[c+d x])^{9/2}\,\text{Sec}[c+d x]^{7/2}}+\frac{3\,\text{Sin}[c+d x]}{32 a d (a+a\,\text{Cos}[c+d x])^{7/2}\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{15\,\text{Sin}[c+d x]}{256 a^2 d (a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{3/2}}+\frac{45\,\text{Sin}[c+d x]}{1024 a^3 d (a+a\,\text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{64 a^5 d (1+\text{Cos}[c+d x])^5} e^{-\frac{1}{2} i (c+d x)} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^9 \sqrt{a (1+\text{Cos}[c+d x])}$$
$$\left(-45 i \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \sqrt{1+e^{2 i (c+d x)}} \left(\text{Log}\left[\sqrt{2}\left(1+e^{i (c+d x)}\right)\right]-\text{Log}\left[2 d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]\right)+\right.$$
$$\frac{1}{128}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^8 \sqrt{\text{Sec}[c+d x]}\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+i\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$
$$\left.\left(-468\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+1394\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+370\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+629\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]+73\,\text{Sin}\left[\frac{9}{2}(c+d x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cos}[c+d x])^{9/2}\,\text{Sec}[c+d x]^{7/2}}, x, 6, 0\right\}$$
$$\frac{35\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{1024\sqrt{2}\,a^{9/2} d}+$$
$$\frac{\text{Sin}[c+d x]}{8 d (a+a\,\text{Cos}[c+d x])^{9/2}\,\text{Sec}[c+d x]^{7/2}}+\frac{7\,\text{Sin}[c+d x]}{96 a d (a+a\,\text{Cos}[c+d x])^{7/2}\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{35\,\text{Sin}[c+d x]}{768 a^2 d (a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{3/2}}+\frac{35\,\text{Sin}[c+d x]}{1024 a^3 d (a+a\,\text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{192\,a^5\,d\,(1+\text{Cos}[c+d\,x])^5}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^9\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}$$
$$\left(-105\,i\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\frac{1}{128}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$
$$\left.\left(3004\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+522\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+3594\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+785\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+853\,\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$\{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x],\,x,\,2,\,0\}$

$$B\,x+\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}$$
$$\frac{B\,d\,x-A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2,\,x,\,3,\,0\}$

$$\frac{B\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{A\,\text{Tan}[c+d\,x]}{d}$$
$$\frac{B\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+A\,\text{Tan}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x],\,x,\,3,\,0\}$

$$(a\,A+a\,B)\,x+\frac{a\,A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{a\,B\,\text{Sin}[c+d\,x]}{d}$$
$$\frac{a\left(A\,d\,x+B\,d\,x-A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+B\,\text{Sin}[c+d\,x]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2,\,x,\,3,\,0\}$

$$a\,B\,x+\frac{a\,(A+B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{a\,A\,\text{Tan}[c+d\,x]}{d}$$
$$\frac{1}{d}a\left(B\,d\,x-(A+B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$\left.A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3,\,x,\,4,\,0\}$

$$\frac{a\,(A+2\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{a\,(A+B)\,\text{Tan}[c+d\,x]}{d}+\frac{a\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}a\left(-2\,(A+2\,B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$2\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+4\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$\left.\frac{A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+4\,(A+B)\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\right\}$$

$$\frac{a\,(3\,A+4\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{2\,a\,(A+B)\,\text{Tan}[c+d\,x]}{3\,d}+$$

$$\frac{a\,(3\,A+4\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+\frac{a\,(A+B)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}-\frac{a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}+\frac{a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{a\,B}{4\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}-$$

$$\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{a\,B}{4\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{2\,a\,A\,\text{Tan}[c+d\,x]}{3\,d}+\frac{2\,a\,B\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,B\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$a^2\,B\,x+\frac{a^2\,(3\,A+4\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{a^2\,(3\,A+2\,B)\,\text{Tan}[c+d\,x]}{2\,d}+\frac{a\,A\,(a+a\,\text{Sec}[c+d\,x])\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{16}\,a^2\,(1+\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(4\,B\,x-\frac{2\,(3\,A+4\,B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{6\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\right.$$

$$\frac{8\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,(2\,A+B)\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}+$$

$$\left.\frac{A}{d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A}{d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$\frac{a^2\,(2\,A+3\,B)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{2\,a^2\,(2\,A+3\,B)\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a^2\,(2\,A+3\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{A\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{48\,d}\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(-6\,(2\,A+3\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+6\,(2\,A+3\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{2\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{(7\,A+3\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]-(5\,A+3\,B)\,\mathrm{Sin}\left[\frac{c}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,(5\,A+6\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+\frac{2\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-\frac{(7\,A+3\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]+(5\,A+3\,B)\,\mathrm{Sin}\left[\frac{c}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,(5\,A+6\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 5,\ 0\}$$

$$\frac{1}{2}\,a^3\,(6\,A+7\,B)\,x+\frac{a^3\,(3\,A+B)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{5\,a^3\,B\,\mathrm{Sin}[c+d\,x]}{2\,d}-\frac{a^2\,(2\,A-B)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{1}{32}\,a^3\,(1+\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(2\,(6\,A+7\,B)\,x-\frac{4\,(3\,A+B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,(3\,A+B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,(A+3\,B)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{d}+\frac{B\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{d}+\frac{4\,(A+3\,B)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+\frac{B\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{d}+\frac{4\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+\frac{4\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^3\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$a^3\,B\,x+\frac{a^3\,(5\,A+7\,B)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{5\,a^3\,(A+B)\,\mathrm{Tan}[c+d\,x]}{2\,d}+\frac{a^2\,(5\,A+3\,B)\,(a+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a\,A\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{96} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(12 B x - \frac{6 (5 A+7 B) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{6 (5 A+7 B) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{2 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} + \frac{(10 A+3 B) \text{Cos}\left[\frac{c}{2}\right]-(8 A+3 B) \text{Sin}\left[\frac{c}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (11 A+9 B) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{2 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} - \frac{(10 A+3 B) \text{Cos}\left[\frac{c}{2}\right]+(8 A+3 B) \text{Sin}\left[\frac{c}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (11 A+9 B) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a \text{Cos}[c+d x])^4 (A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^2, x, 6, 0\}$$

$$\frac{1}{2} a^4 (13 A+12 B) x + \frac{a^4 (4 A+B) \text{ArcTanh}[\text{Sin}[c+d x]]}{d} + \frac{5 a^4 (A+2 B) \text{Sin}[c+d x]}{2 d} - \frac{a^3 (3 A-8 B) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{6 d} - \frac{a^2 (3 A-B) (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{3 d} + \frac{a A (a+a \text{Cos}[c+d x])^3 \text{Tan}[c+d x]}{d}$$

$$\frac{1}{192} a^4 (1+\text{Cos}[c+d x])^4 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^8 \left(78 A x+72 B x - \frac{12 (4 A+B) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{12 (4 A+B) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{3 (16 A+27 B) \text{Cos}[d x] \text{Sin}[c]}{d} + \frac{3 (A+4 B) \text{Cos}[2 d x] \text{Sin}[2 c]}{d} + \frac{B \text{Cos}[3 d x] \text{Sin}[3 c]}{d} + \frac{3 (16 A+27 B) \text{Cos}[c] \text{Sin}[d x]}{d} + \frac{3 (A+4 B) \text{Cos}[2 c] \text{Sin}[2 d x]}{d} + \frac{B \text{Cos}[3 c] \text{Sin}[3 d x]}{d} + \frac{12 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{12 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a \text{Cos}[c+d x])^4 (A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^3, x, 6, 0\}$$

$$\frac{1}{2} a^4 (8 A+13 B) x + \frac{a^4 (13 A+8 B) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 d} - \frac{5 a^4 (A-B) \text{Sin}[c+d x]}{2 d} - \frac{a^3 (6 A+B) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{2 d} + \frac{a^2 (5 A+2 B) (a+a \text{Cos}[c+d x])^2 \text{Tan}[c+d x]}{2 d} + \frac{a A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 d}$$

$$\frac{1}{64} a^4 (1+\text{Cos}[c+d x])^4 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^8 \left(2(8A+13B)x - \frac{2(13A+8B)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{2(13A+8B)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{4(A+4B)\text{Cos}[d x]\text{Sin}[c]}{d} + \frac{B\text{Cos}[2 d x]\text{Sin}[2 c]}{d} + \frac{4(A+4B)\text{Cos}[c]\text{Sin}[d x]}{d} + \frac{B\text{Cos}[2 c]\text{Sin}[2 d x]}{d} + \frac{A}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4(4A+B)\text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} - \frac{A}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4(4A+B)\text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\text{Cos}[c+d x])^4 (A+B\text{Cos}[c+d x])\text{Sec}[c+d x]^4, x, 6, 0\}$$

$$\left(a^4 A+4 a^4 B\right)x + \frac{a^4(12A+13B)\text{ArcTanh}[\text{Sin}[c+d x]]}{2d} - \frac{5a^4(2A+B)\text{Sin}[c+d x]}{2d} + \frac{a^3(11A+9B)(a+a\text{Cos}[c+d x])\text{Tan}[c+d x]}{3d} + \frac{a^2(2A+B)(a+a\text{Cos}[c+d x])^2\text{Sec}[c+d x]\text{Tan}[c+d x]}{2d} + \frac{a A(a+a\text{Cos}[c+d x])^3\text{Sec}[c+d x]^2\text{Tan}[c+d x]}{3d}$$

$$a^4\left(\frac{(A+4B)(c+d x)}{d} + \frac{(-12A-13B)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2d} + \frac{(12A+13B)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2d} + \frac{13A+3B}{12d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{A\text{Sin}\left[\frac{1}{2}(c+d x)\right]}{6d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} + \frac{A\text{Sin}\left[\frac{1}{2}(c+d x)\right]}{6d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} + \frac{-13A-3B}{12d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4\left(5A\text{Sin}\left[\frac{1}{2}(c+d x)\right]+3B\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{4\left(5A\text{Sin}\left[\frac{1}{2}(c+d x)\right]+3B\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{B\text{Sin}[c+d x]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\text{Cos}[c+d x])^4 (A+B\text{Cos}[c+d x])\text{Sec}[c+d x]^5, x, 6, 0\}$$

$$a^4 B x + \frac{a^4(35A+48B)\text{ArcTanh}[\text{Sin}[c+d x]]}{8d} + \frac{5a^4(7A+8B)\text{Tan}[c+d x]}{8d} + \frac{a^3(35A+32B)(a+a\text{Sec}[c+d x])\text{Tan}[c+d x]}{24d} + \frac{a^2(7A+4B)(a+a\text{Sec}[c+d x])^2\text{Tan}[c+d x]}{12d} + \frac{a A(a+a\text{Sec}[c+d x])^3\text{Tan}[c+d x]}{4d}$$

$$\frac{1}{3072\,d}\,a^4\,(1+\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8$$
$$\left(-24\,(35\,A+48\,B)\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\text{Sec}[c]\,\text{Sec}[c+d\,x]^4$$
$$(72\,B\,d\,x\,\text{Cos}[c]+48\,B\,d\,x\,\text{Cos}[c+2\,d\,x]+48\,B\,d\,x\,\text{Cos}[3\,c+2\,d\,x]+12\,B\,d\,x\,\text{Cos}[3\,c+4\,d\,x]+12\,B\,d\,x\,\text{Cos}[5\,c+4\,d\,x]-$$
$$480\,A\,\text{Sin}[c]-480\,B\,\text{Sin}[c]+105\,A\,\text{Sin}[d\,x]+48\,B\,\text{Sin}[d\,x]+105\,A\,\text{Sin}[2\,c+d\,x]+48\,B\,\text{Sin}[2\,c+d\,x]+$$
$$544\,A\,\text{Sin}[c+2\,d\,x]+496\,B\,\text{Sin}[c+2\,d\,x]-96\,A\,\text{Sin}[3\,c+2\,d\,x]-144\,B\,\text{Sin}[3\,c+2\,d\,x]+81\,A\,\text{Sin}[2\,c+3\,d\,x]+$$
$$48\,B\,\text{Sin}[2\,c+3\,d\,x]+81\,A\,\text{Sin}[4\,c+3\,d\,x]+48\,B\,\text{Sin}[4\,c+3\,d\,x]+160\,A\,\text{Sin}[3\,c+4\,d\,x]+160\,B\,\text{Sin}[3\,c+4\,d\,x])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]\,(A+B\,\text{Cos}[c+d\,x])}{a+a\,\text{Cos}[c+d\,x]},\,x,\,3,\,0\right\}$$

$$\frac{(A-B)\,x}{a}+\frac{B\,\text{Sin}[c+d\,x]}{a\,d}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]\,\left(2\,(A-B)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+\right.$$
$$\left.2\,(A-B)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]-4\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{a+a\,\text{Cos}[c+d\,x]},\,x,\,2,\,0\right\}$$

$$\frac{B\,x}{a}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]\,\left(B\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+B\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+2\,(A-B)\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{a\,d\,(1+\text{Cos}[c+d\,x])}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+a\,\text{Cos}[c+d\,x]},\,x,\,2,\,0\right\}$$

$$\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}$$
$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]\,\left(A\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\left.A\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+2\,(A-B)\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\,x,\,4,\,0\right\}$$

$$-\frac{(A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}+\frac{(2\,A-B)\,\text{Tan}[c+d\,x]}{a\,d}-\frac{(A-B)\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}\,2\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left((A-B)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-(A-B)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\frac{2\,(A+2\,(A-B)\,\text{Cos}[c])\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sin}\left[\frac{c}{2}\right]}{\text{Cos}\left[\frac{c}{2}\right]+\text{Cos}\left[\frac{5\,c}{2}\right]}+(A-B)\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\frac{A\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+\frac{A\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3}{a+a\,\text{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{(3\,A-2\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a\,d}-\frac{2\,(A-B)\,\text{Tan}[c+d\,x]}{a\,d}+\frac{(3\,A-2\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a\,d}-\frac{(A-B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(4\,(-A+B)\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left((-6\,A+4\,B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+6\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-4\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-4\,(A-B)\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]+\frac{A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^4}{a+a\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$-\frac{3\,(A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a\,d}+\frac{2\,(4\,A-3\,B)\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{3\,(A-B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a\,d}+\frac{(4\,A-3\,B)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{(A-B)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a\,d\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(144\,(A-B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\left(6\,(A+B)\,\text{Sin}\left[\frac{d\,x}{2}\right]+3\,(13\,A-9\,B)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-24\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$
$$12\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-6\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+6\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-24\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+24\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+$$
$$21\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+9\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+$$
$$9\,B\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+7\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-3\,B\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$
$$3\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-9\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+9\,B\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+16\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-$$
$$\left.12\,B\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+10\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-6\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+6\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-6\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^4\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$
$$\frac{(7\,A-10\,B)\,x}{2\,a^2}-\frac{8\,(2\,A-3\,B)\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(7\,A-10\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^2\,d}-$$
$$\frac{4\,(2\,A-3\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(7\,A-10\,B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}$$
$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(36\,(7\,A-10\,B)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+36\,(7\,A-10\,B)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+84\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-\right.$$
$$120\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+84\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-120\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-381\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+516\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$147\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-156\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-239\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+342\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-63\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+$$
$$118\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-15\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+30\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-15\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+30\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+$$
$$\left.3\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-3\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-3\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 4,\ 0\right\}$$
$$-\frac{(4\,A-7\,B)\,x}{2\,a^2}+\frac{2\,(5\,A-8\,B)\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(4\,A-7\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^2\,d}+$$
$$\frac{(A-B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(5\,A-8\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}\left[\frac{c}{2}\right] \left(-36 (4 A-7 B) d x \text{Cos}\left[\frac{d x}{2}\right]-36 (4 A-7 B) d x \text{Cos}\left[c+\frac{d x}{2}\right]-48 A d x \text{Cos}\left[c+\frac{3 d x}{2}\right]+84 B d x \text{Cos}\left[c+\frac{3 d x}{2}\right]-48 A d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+84 B d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+264 A \text{Sin}\left[\frac{d x}{2}\right]-381 B \text{Sin}\left[\frac{d x}{2}\right]-120 A \text{Sin}\left[c+\frac{d x}{2}\right]+147 B \text{Sin}\left[c+\frac{d x}{2}\right]+164 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-239 B \text{Sin}\left[c+\frac{3 d x}{2}\right]+36 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-63 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+12 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-15 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+12 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-15 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+3 B \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+3 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x] (A+B \text{Cos}[c+d x])}{(a+a \text{Cos}[c+d x])^2}, x, 3, 0\right\}$$

$$\frac{B x}{a^2}+\frac{(A-B) \text{Cos}[c+d x] \text{Sin}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}+\frac{(A-4 B) \text{Sin}[c+d x]}{3 a d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{24 a^2 d} \text{Sec}\left[\frac{c}{2}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \left(9 B d x \text{Cos}\left[\frac{d x}{2}\right]+9 B d x \text{Cos}\left[c+\frac{d x}{2}\right]+3 B d x \text{Cos}\left[c+\frac{3 d x}{2}\right]+3 B d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+6 A \text{Sin}\left[\frac{d x}{2}\right]-18 B \text{Sin}\left[\frac{d x}{2}\right]-6 A \text{Sin}\left[c+\frac{d x}{2}\right]+12 B \text{Sin}\left[c+\frac{d x}{2}\right]+4 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-10 B \text{Sin}\left[c+\frac{3 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]}{(a+a \text{Cos}[c+d x])^2}, x, 3, 0\right\}$$

$$\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}-\frac{(A-B) \text{Sin}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}-\frac{(4 A-B) \text{Sin}[c+d x]}{3 a d (a+a \text{Cos}[c+d x])}$$

$$-\frac{1}{6 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}\left[\frac{c}{2}\right] \left(3 A \text{Cos}\left[c+\frac{3 d x}{2}\right] \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+3 A \text{Cos}\left[2 c+\frac{3 d x}{2}\right] \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+9 A \text{Cos}\left[\frac{d x}{2}\right] \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+9 A \text{Cos}\left[c+\frac{d x}{2}\right] \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)-3 A \text{Cos}\left[c+\frac{3 d x}{2}\right] \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-3 A \text{Cos}\left[2 c+\frac{3 d x}{2}\right] \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+18 A \text{Sin}\left[\frac{d x}{2}\right]-6 B \text{Sin}\left[\frac{d x}{2}\right]-6 A \text{Sin}\left[c+\frac{d x}{2}\right]+8 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-2 B \text{Sin}\left[c+\frac{3 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^3}{(a+a \text{Cos}[c+d x])^2}, x, 6, 0\right\}$$

$$\frac{(7A-4B)\,\text{ArcTanh}[\text{Sin}[c+dx]]}{2a^2d}-\frac{2(8A-5B)\,\text{Tan}[c+dx]}{3a^2d}+\frac{(7A-4B)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2a^2d}-\frac{(A-B)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{3d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(8A-5B)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{3ad\,(a+a\,\text{Cos}[c+dx])}$$

$$-\frac{1}{48a^2d\,(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]\left(96(7A-4B)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^3\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+dx]^2\left(-14(A-B)\,\text{Sin}\left[\frac{dx}{2}\right]+(97A-64B)\,\text{Sin}\left[\frac{3dx}{2}\right]-126A\,\text{Sin}\left[c-\frac{dx}{2}\right]+84B\,\text{Sin}\left[c-\frac{dx}{2}\right]+42A\,\text{Sin}\left[c+\frac{dx}{2}\right]-42B\,\text{Sin}\left[c+\frac{dx}{2}\right]-98A\,\text{Sin}\left[2c+\frac{dx}{2}\right]+56B\,\text{Sin}\left[2c+\frac{dx}{2}\right]-3A\,\text{Sin}\left[c+\frac{3dx}{2}\right]+6B\,\text{Sin}\left[c+\frac{3dx}{2}\right]+37A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-34B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-63A\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+36B\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+75A\,\text{Sin}\left[c+\frac{5dx}{2}\right]-48B\,\text{Sin}\left[c+\frac{5dx}{2}\right]+15A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-6B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+39A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-30B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-21A\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+12B\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+32A\,\text{Sin}\left[2c+\frac{7dx}{2}\right]-20B\,\text{Sin}\left[2c+\frac{7dx}{2}\right]+12A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-6B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+20A\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-14B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^4}{(a+a\,\text{Cos}[c+dx])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{(10A-7B)\,\text{ArcTanh}[\text{Sin}[c+dx]]}{2a^2d}+\frac{8(3A-2B)\,\text{Tan}[c+dx]}{3a^2d}-\frac{(10A-7B)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2a^2d}+\frac{4(3A-2B)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3a^2d}-\frac{(A-B)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(10A-7B)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3ad\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{1}{96a^2d\,(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]\left(192(10A-7B)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^3\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+dx]^3\left((-6A+45B)\,\text{Sin}\left[\frac{dx}{2}\right]+(310A-201B)\,\text{Sin}\left[\frac{3dx}{2}\right]-306A\,\text{Sin}\left[c-\frac{dx}{2}\right]+195B\,\text{Sin}\left[c-\frac{dx}{2}\right]+42A\,\text{Sin}\left[c+\frac{dx}{2}\right]-51B\,\text{Sin}\left[c+\frac{dx}{2}\right]-270A\,\text{Sin}\left[2c+\frac{dx}{2}\right]+189B\,\text{Sin}\left[2c+\frac{dx}{2}\right]+50A\,\text{Sin}\left[c+\frac{3dx}{2}\right]-B\,\text{Sin}\left[c+\frac{3dx}{2}\right]+90A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-81B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-170A\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+119B\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+198A\,\text{Sin}\left[c+\frac{5dx}{2}\right]-129B\,\text{Sin}\left[c+\frac{5dx}{2}\right]+42A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-9B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+66A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-57B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-90A\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+63B\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+114A\,\text{Sin}\left[2c+\frac{7dx}{2}\right]-75B\,\text{Sin}\left[2c+\frac{7dx}{2}\right]+36A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-15B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+48A\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-39B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-30A\,\text{Sin}\left[5c+\frac{7dx}{2}\right]+21B\,\text{Sin}\left[5c+\frac{7dx}{2}\right]+48A\,\text{Sin}\left[3c+\frac{9dx}{2}\right]-32B\,\text{Sin}\left[3c+\frac{9dx}{2}\right]+22A\,\text{Sin}\left[4c+\frac{9dx}{2}\right]-12B\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+26A\,\text{Sin}\left[5c+\frac{9dx}{2}\right]-20B\,\text{Sin}\left[5c+\frac{9dx}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^5\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{(13\,A-23\,B)\,x}{2\,a^3}-\frac{8\,(19\,A-34\,B)\,\text{Sin}[c+d\,x]}{15\,a^3\,d}+\frac{(13\,A-23\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^3\,d}-\frac{4\,(19\,A-34\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{15\,a^3\,d}+$$
$$\frac{(A-B)\,\text{Cos}[c+d\,x]^5\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(8\,A-13\,B)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(13\,A-23\,B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}$$
$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(600\,(13\,A-23\,B)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+600\,(13\,A-23\,B)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+3900\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-\right.$$
$$6900\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+3900\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-6900\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+780\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$
$$1380\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+780\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-1380\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-12\,760\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+20\,410\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$7560\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-11\,110\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-9230\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+15\,380\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+930\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$380\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-2782\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+4777\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-750\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+1625\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$
$$105\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+230\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-105\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+230\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+15\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-$$
$$\left.20\,B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+15\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-20\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+5\,B\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+5\,B\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^4\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$-\frac{(6\,A-13\,B)\,x}{2\,a^3}+\frac{8\,(9\,A-19\,B)\,\text{Sin}[c+d\,x]}{15\,a^3\,d}-\frac{(6\,A-13\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^3\,d}+$$
$$\frac{(A-B)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(6\,A-11\,B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{4\,(9\,A-19\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]$$
$$\left(-600\,(6\,A-13\,B)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-600\,(6\,A-13\,B)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]-1800\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+3900\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-\right.$$
$$1800\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+3900\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-360\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+780\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$
$$360\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+780\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+7020\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-12\,760\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-4500\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$
$$7560\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+4860\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9230\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-900\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+930\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+$$
$$1452\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2782\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+300\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-750\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+60\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$
$$\left.105\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+60\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-105\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$\frac{(A-3\,B)\,x}{a^3}-\frac{(7\,A-27\,B)\,\text{Sin}[c+d\,x]}{15\,a^3\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(4\,A-9\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-3\,B)\,\text{Sin}[c+d\,x]}{a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{120\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]\left(300\,(A-3\,B)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+300\,(A-3\,B)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+150\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-450\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+150\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-450\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+30\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-90\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+30\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-90\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-740\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+1755\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+540\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1125\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-460\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+1215\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+180\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-225\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-128\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+363\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+75\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 4,\ 0\right\}$$

$$\frac{B\,x}{a^3}+\frac{(A-B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(2\,A-7\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{2\,(A-11\,B)\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d}\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(150\,B\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+150\,B\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+75\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+75\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+15\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+15\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+80\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-370\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-60\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+270\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+40\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-230\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-30\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+90\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+14\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-64\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$-\frac{(3\,A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^3\,d}+\frac{2\,(36\,A-11\,B)\,\text{Tan}[c+d\,x]}{15\,a^3\,d}-\frac{(A-B)\,\text{Tan}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(9\,A-4\,B)\,\text{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(3\,A-B)\,\text{Tan}[c+d\,x]}{a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{120\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(960\,(3\,A-B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(-5\,(51\,A-32\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]+(567\,A-167\,B)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-600\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$
$$170\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+375\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-170\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-480\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+160\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$
$$60\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+75\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+402\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-167\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-225\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+$$
$$75\,B\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+315\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-95\,B\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+30\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$240\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-95\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-45\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$
$$\left.72\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-22\,B\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+15\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+57\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-22\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$
$$\frac{(13\,A-6\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^3\,d}-\frac{8\,(19\,A-9\,B)\,\text{Tan}[c+d\,x]}{15\,a^3\,d}+\frac{(13\,A-6\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^3\,d}-$$
$$\frac{(A-B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(11\,A-6\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{4\,(19\,A-9\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(1920\,(13\,A-6\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left((-1235\,A+870\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,(761\,A-366\,B)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-4329\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$
$$2094\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+1989\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1314\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-3575\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+1650\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$
$$475\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+450\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+2005\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-1230\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-2275\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+$$
$$1050\,B\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2673\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-1278\,B\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+105\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+90\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$1593\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-918\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-975\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+450\,B\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$
$$1325\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-630\,B\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+255\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-60\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$875\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-480\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-195\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+90\,B\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+304\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-$$
$$\left.144\,B\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+90\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-30\,B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+214\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-114\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^5\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^4},\,x,\,6,\,0\right\}$$

$$-\frac{(8A-21B)\,x}{2a^4}+\frac{8(83A-216B)\,\text{Sin}[c+dx]}{105a^4d}-\frac{(8A-21B)\,\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{2a^4d}+\frac{(A-B)\,\text{Cos}[c+dx]^5\,\text{Sin}[c+dx]}{7d\,(a+a\,\text{Cos}[c+dx])^4}+$$
$$\frac{(A-2B)\,\text{Cos}[c+dx]^4\,\text{Sin}[c+dx]}{5ad\,(a+a\,\text{Cos}[c+dx])^3}+\frac{(52A-129B)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{105a^2d\,(a+a\,\text{Cos}[c+dx])^2}+\frac{4(83A-216B)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{105a^3d\,(a+a\,\text{Cos}[c+dx])}$$
$$\frac{1}{6720a^4d\,(1+\text{Cos}[c+dx])^4}$$
$$\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]\Big(-14700(8A-21B)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]-14700(8A-21B)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]-70560A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+$$
$$185220B\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]-70560A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+185220B\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]-23520A\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+$$
$$61740B\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]-23520A\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]+61740B\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]-3360A\,dx\,\text{Cos}\left[3c+\frac{7dx}{2}\right]+$$
$$8820B\,dx\,\text{Cos}\left[3c+\frac{7dx}{2}\right]-3360A\,dx\,\text{Cos}\left[4c+\frac{7dx}{2}\right]+8820B\,dx\,\text{Cos}\left[4c+\frac{7dx}{2}\right]+243320A\,\text{Sin}\left[\frac{dx}{2}\right]-$$
$$539490B\,\text{Sin}\left[\frac{dx}{2}\right]-184520A\,\text{Sin}\left[c+\frac{dx}{2}\right]+386190B\,\text{Sin}\left[c+\frac{dx}{2}\right]+184464A\,\text{Sin}\left[c+\frac{3dx}{2}\right]-$$
$$422478B\,\text{Sin}\left[c+\frac{3dx}{2}\right]-72240A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+132930B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+77168A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-$$
$$181461B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-8400A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+3675B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+15164A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-$$
$$36003B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+2940A\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-9555B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+420A\,\text{Sin}\left[4c+\frac{9dx}{2}\right]-$$
$$945B\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+420A\,\text{Sin}\left[5c+\frac{9dx}{2}\right]-945B\,\text{Sin}\left[5c+\frac{9dx}{2}\right]+105B\,\text{Sin}\left[5c+\frac{11dx}{2}\right]+105B\,\text{Sin}\left[6c+\frac{11dx}{2}\right]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^4\,(A+B\,\text{Cos}[c+dx])}{(a+a\,\text{Cos}[c+dx])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(A-4B)\,x}{a^4}-\frac{(55A-244B)\,\text{Sin}[c+dx]}{105a^4d}+\frac{(A-B)\,\text{Cos}[c+dx]^4\,\text{Sin}[c+dx]}{7d\,(a+a\,\text{Cos}[c+dx])^4}+$$
$$\frac{(5A-12B)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{35ad\,(a+a\,\text{Cos}[c+dx])^3}+\frac{(25A-88B)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{105a^2d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(A-4B)\,\text{Sin}[c+dx]}{a^3d\,(a+a\,\text{Cos}[c+dx])}$$
$$\frac{1}{1680a^4d\,(1+\text{Cos}[c+dx])^4}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]$$
$$\Big(7350(A-4B)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]+7350(A-4B)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]+4410A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]-17640B\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+$$
$$4410A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]-17640B\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+1470A\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]-5880B\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+$$
$$1470A\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]-5880B\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]+210A\,dx\,\text{Cos}\left[3c+\frac{7dx}{2}\right]-840B\,dx\,\text{Cos}\left[3c+\frac{7dx}{2}\right]+$$
$$210A\,dx\,\text{Cos}\left[4c+\frac{7dx}{2}\right]-840B\,dx\,\text{Cos}\left[4c+\frac{7dx}{2}\right]-19880A\,\text{Sin}\left[\frac{dx}{2}\right]+60830B\,\text{Sin}\left[\frac{dx}{2}\right]+16520A\,\text{Sin}\left[c+\frac{dx}{2}\right]-$$
$$46130B\,\text{Sin}\left[c+\frac{dx}{2}\right]-14280A\,\text{Sin}\left[c+\frac{3dx}{2}\right]+46116B\,\text{Sin}\left[c+\frac{3dx}{2}\right]+7560A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-18060B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-$$
$$5600A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+19292B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+1680A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-2100B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-$$
$$1040A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+3791B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+735B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+105B\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+105B\,\text{Sin}\left[5c+\frac{9dx}{2}\right]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 5,\ 0\right\}$$

$$\frac{B\,x}{a^4}+\frac{(A-B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}+\frac{(3\,A-10\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(6\,A-55\,B)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{2\,(3\,A-80\,B)\,\text{Sin}[c+d\,x]}{105\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{13440\,a^4\,d}\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(3675\,B\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+3675\,B\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+2205\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+2205\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+735\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+735\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+105\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+105\,B\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]+1260\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-9940\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-1260\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+8260\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+882\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-7140\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-630\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+3780\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+294\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2800\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-210\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+840\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+72\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-520\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 7,\ 0\right\}$$

$$-\frac{(4\,A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}+\frac{8\,(83\,A-20\,B)\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{(A-B)\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{(12\,A-5\,B)\,\text{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(88\,A-25\,B)\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(4\,A-B)\,\text{Tan}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{1680\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(26880\,(4\,A-B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(-245\,(44\,A-17\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]+7\,(2684\,A-635\,B)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-20524\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+4795\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+14644\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-4795\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-16660\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+4165\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-4690\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+2275\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+14378\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-4445\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9100\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2275\,B\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+11668\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-2785\,B\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-630\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+735\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+9358\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2785\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2940\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+735\,B\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+4228\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-1015\,B\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+315\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+105\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3493\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-1015\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-420\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+105\,B\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+664\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-160\,B\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+105\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+559\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-160\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 8,\ 0\right\}$$

$$\frac{(21\,A-8\,B)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^4\,d}-\frac{8\,(216\,A-83\,B)\,\mathrm{Tan}[c+d\,x]}{105\,a^4\,d}+\frac{(21\,A-8\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^4\,d}-\frac{(A-B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{7\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}-\frac{(2\,A-B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(129\,A-52\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{4\,(216\,A-83\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{105\,a^3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{6720\,a^4\,d\,(1+\mathrm{Cos}[c+d\,x])^4}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(53\,760\,(21\,A-8\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\left((-73\,206\,A+38\,668\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,(41\,667\,A-16\,096\,B)\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-183\,162\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+70\,896\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+100\,842\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-50\,316\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-155\,526\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+59\,248\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-37\,380\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+22\,820\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+101\,148\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-48\,004\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-102\,900\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+39\,200\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+119\,364\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-46\,032\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-8820\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+8750\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+78\,204\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-35\,742\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-49\,980\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+19\,040\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+64\,053\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-24\,664\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+3885\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+1050\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+44\,733\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-19\,834\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-15\,435\,A\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+5880\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+21\,987\,A\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-8456\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+3675\,A\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-630\,B\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+16\,107\,A\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-6986\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-2205\,A\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+840\,B\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+3456\,A\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]-1328\,B\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+840\,A\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]-210\,B\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+2616\,A\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-1118\,B\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)\right)$$

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ (A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x],\ x,\ 2,\ 0\right\}$$

$$\frac{2\sqrt{2}\ a\,A\,\mathrm{ArcTanh}\left[\sqrt{2}\ \mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,a\,B\,\mathrm{Sin}[c+d\,x]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ (A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{2}\ a\,(A+2\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\ \mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,A\,\mathrm{Tan}[c+d\,x]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(2\sqrt{2}\;(A+2\,B)\;\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{2\,i\;(A+2\,B)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\;\text{Sin}\left[\frac{c}{2}\right]}+\right.$$

$$\frac{2\,i\;(A+2\,B)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\;\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(A+2\,B)\;\text{Log}\left[4+2\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\;\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(A+2\,B)\;\text{Log}\left[-2\left(-2+\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\;\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\left.\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;(A+B\,\text{Cos}[c+d\,x])\;\text{Sec}[c+d\,x]^3,\;x,\;3,\;0\right\}$$

$$\frac{a\;(3\,A+4\,B)\;\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\sqrt{2}\;d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\;(3\,A+4\,B)\;\text{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,A\,\text{Sec}[c+d\,x]\;\text{Tan}[c+d\,x]}{2\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{32\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left(-2\,i\sqrt{2}\;(3\,A+4\,B)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-\right.$$

$$2\,i\sqrt{2}\;(3\,A+4\,B)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+$$

$$2\sqrt{2}\;(3\,A+4\,B)\;\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\sqrt{2}\;(3\,A+4\,B)\;\text{Log}\left[4+2\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$\sqrt{2}\;(3\,A+4\,B)\;\text{Log}\left[-2\left(-2+\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((3\,A+4\,B)\;\text{Cos}\left[\frac{c}{2}\right]-(A+4\,B)\;\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((3\,A+4\,B)\;\text{Cos}\left[\frac{c}{2}\right]+(A+4\,B)\;\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;(A+B\,\text{Cos}[c+d\,x])\;\text{Sec}[c+d\,x]^4,\;x,\;4,\;0\right\}$$

$$\frac{a\,(5A+6B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+$$

$$\frac{a\,(5A+6B)\,\text{Tan}[c+dx]}{8\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,(5A+6B)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{12\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,A\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3\,d\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{192\,d}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]\left(-6\,i\sqrt{2}\,(5A+6B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]-\right.$$

$$6\,i\sqrt{2}\,(5A+6B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]+$$

$$6\sqrt{2}\,(5A+6B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-3\sqrt{2}\,(5A+6B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-$$

$$3\sqrt{2}\,(5A+6B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{24\,(A+2B)\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{12\left((5A+6B)\,\text{Cos}\left[\frac{c}{2}\right]-(3A+2B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\left.\frac{24\,(A+2B)\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}-\frac{12\left((5A+6B)\,\text{Cos}\left[\frac{c}{2}\right]+(3A+2B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}\right)$$

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+dx])^{3/2}\,(A+B\,\text{Cos}[c+dx])\,\text{Sec}[c+dx],\,x,\,3,\,0\right\}$$

$$\frac{2\sqrt{2}\,a^2\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{2\,a^2\,(3A+4B)\,\text{Sin}[c+dx]}{3\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{2\,a\,B\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,d}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+dx])^{3/2}\,(A+B\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^2,\,x,\,3,\,0\right\}$$

$$\frac{\sqrt{2}\,a^2\,(3A+2B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{a^2\,(A-2B)\,\text{Sin}[c+dx]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,A\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Tan}[c+dx]}{d}$$

$$\frac{1}{16\,d}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(2\sqrt{2}\,(3\,A+2\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$16\,B\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+\frac{2\,i\,(3\,A+2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{2\,i\,(3\,A+2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(3\,A+2\,B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\left.\frac{(3\,A+2\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+\right.$$

$$\left.16\,B\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3,\ x,\ 3,\ 0\right\}$$

$$\frac{a^2\,(7\,A+12\,B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(5\,A+4\,B)\,\text{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,A\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{64\,d}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-2\,i\sqrt{2}\,(7\,A+12\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-\right.$$

$$2\,i\sqrt{2}\,(7\,A+12\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+$$

$$2\sqrt{2}\,(7\,A+12\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\sqrt{2}\,(7\,A+12\,B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$\sqrt{2}\,(7\,A+12\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((7\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]-(5\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((7\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(5\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{a^2\,(11\,A+14\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,(11\,A+14\,B)\,\mathrm{Tan}[c+d\,x]}{8\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(7\,A+6\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{12\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{384\,d}\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\left(-6\,i\,\sqrt{2}\,(11\,A+14\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-6\,i\,\sqrt{2}\,(11\,A+14\,B)\right.$$

$$\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+6\,\sqrt{2}\,(11\,A+14\,B)\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$3\,\sqrt{2}\,(11\,A+14\,B)\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$3\,\sqrt{2}\,(11\,A+14\,B)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{24\,(3\,A+2\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{12\left((11\,A+14\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]-5\,(A+2\,B)\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+$$

$$\left.\frac{24\,(3\,A+2\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{12\left((11\,A+14\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]+5\,(A+2\,B)\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a^2\,(75\,A+88\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(75\,A+88\,B)\,\mathrm{Tan}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,(75\,A+88\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{96\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(9\,A+8\,B)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-75\,A-88\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{i\,(-75\,A-88\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(75\,A+88\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-88\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-88\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(15\,A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]-9\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+24\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(75\,A\,\text{Cos}\left[\frac{c}{2}\right]+88\,B\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-40\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-15\,A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]-9\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+24\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-75\,A\,\text{Cos}\left[\frac{c}{2}\right]-88\,B\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-40\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x],\ x,\ 4,\ 0\right\}$$

$$\frac{2\,\sqrt{2}\,a^3\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^3\,(35\,A+32\,B)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a^2\,(5\,A+8\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a\,B\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2,\ x,\ 4,\ 0\right\}$$

$$\frac{\sqrt{2}\,a^3\,(5\,A+2\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^3\,(3\,A+14\,B)\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{a^2\,(3\,A-2\,B)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d}+\frac{a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{1}{96\,d}\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-6\,i\,\sqrt{2}\,(5\,A+2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-\right.$$

$$6\,i\,\sqrt{2}\,(5\,A+2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+$$

$$6\,\sqrt{2}\,(5\,A+2\,B)\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-3\,\sqrt{2}\,(5\,A+2\,B)\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$3\,\sqrt{2}\,(5\,A+2\,B)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$

$$24\,(2\,A+5\,B)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]+8\,B\,\mathrm{Cos}\left[\frac{3\,d\,x}{2}\right]\mathrm{Sin}\left[\frac{3\,c}{2}\right]+24\,(2\,A+5\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$\left.8\,B\,\mathrm{Cos}\left[\frac{3\,c}{2}\right]\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+\frac{12\,A}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{12\,A}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{a^3\,(19\,A+20\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{a^3\,(9\,A-4\,B)\,\mathrm{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,(7\,A+4\,B)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{4\,d}+\frac{a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{128\,d}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(-2\,i\,\sqrt{2}\,(19\,A+20\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-2\,i\,\sqrt{2}\,(19\,A+20\,B)\right.$$
$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+2\,\sqrt{2}\,(19\,A+20\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$\sqrt{2}\,(19\,A+20\,B)\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\sqrt{2}\,(19\,A+20\,B)$$
$$\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+64\,B\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+64\,B\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((11\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]-(9\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$
$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((11\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(9\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^4,\ x,\ 4,\ 0\right\}$$
$$\frac{a^3\,(25\,A+38\,B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^3\,(49\,A+54\,B)\,\text{Tan}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{a^2\,(3\,A+2\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{4\,d}+\frac{a\,A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{768\,d}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(-6\,i\,\sqrt{2}\,(25\,A+38\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-6\,i\,\sqrt{2}\,(25\,A+38\,B)\right.$$
$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+6\,\sqrt{2}\,(25\,A+38\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$3\,\sqrt{2}\,(25\,A+38\,B)\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$3\,\sqrt{2}\,(25\,A+38\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$
$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{24\,(5\,A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{12\left((25\,A+22\,B)\,\text{Cos}\left[\frac{c}{2}\right]-3\,(5\,A+6\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+$$
$$\left.\frac{24\,(5\,A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{12\left((25\,A+22\,B)\,\text{Cos}\left[\frac{c}{2}\right]+3\,(5\,A+6\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a^3\,(163\,A+200\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^3\,(163\,A+200\,B)\,\mathrm{Tan}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^3\,(95\,A+104\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{96\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(11\,A+8\,B)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d}+\frac{a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-163\,A-200\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{i\,(-163\,A-200\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(163\,A+200\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-200\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-200\,B)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(23\,A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+40\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(163\,A\,\text{Cos}\left[\frac{c}{2}\right]+200\,B\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-120\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(-23\,A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+40\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(-163\,A\,\text{Cos}\left[\frac{c}{2}\right]-200\,B\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-120\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 3,\ 0\right\}$$

$$-\frac{2\,(A-B)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,(A-B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{\sqrt{2}\,(A-2\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Tan}[c+d\,x]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,d\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(-8\,(A-B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+8\,(A-B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-\right.$$

$$2\,\sqrt{2}\,(A-2\,B)\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\frac{2\,i\,(A-2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{2\,i\,(A-2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{(A-2\,B)\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\left.\frac{(A-2\,B)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+\right.$$

$$\left.\frac{4\,A}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{4\,A}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,(A-B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{(7\,A-4\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(A-4\,B)\,\mathrm{Tan}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{16\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(32\,(A-B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-32\,(A-B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+\right.$$

$$2\,\sqrt{2}\,(7\,A-4\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{2\,i\,(7\,A-4\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{2\,i\,(7\,A-4\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A-4\,B)\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A-4\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((A-4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(-3\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((A-4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(3\,A-4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^4\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(15\,A-19\,B)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{(A-B)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(651\,A-799\,B)\,\text{Sin}[c+d\,x]}{105\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(63\,A-67\,B)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{70\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(7\,A-11\,B)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{14\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(273\,A-397\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{210\,a^2\,d}$$

$$\frac{(15\,A-19\,B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+\frac{(-15\,A+19\,B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{5\,(4\,A-5\,B)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{c}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}-\frac{(6\,A-11\,B)\,\mathrm{Cos}\left[\frac{3\,d\,x}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]}{3\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{(2\,A-3\,B)\,\mathrm{Cos}\left[\frac{5\,d\,x}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{5\,c}{2}\right]}{5\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+\frac{B\,\mathrm{Cos}\left[\frac{7\,d\,x}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{7\,c}{2}\right]}{7\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+\frac{5\,(4\,A-5\,B)\,\mathrm{Cos}\left[\frac{c}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}-$$

$$\frac{(6\,A-11\,B)\,\mathrm{Cos}\left[\frac{3\,c}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]}{3\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+\frac{(2\,A-3\,B)\,\mathrm{Cos}\left[\frac{5\,c}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{5\,d\,x}{2}\right]}{5\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+\frac{B\,\mathrm{Cos}\left[\frac{7\,c}{2}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\mathrm{Sin}\left[\frac{7\,d\,x}{2}\right]}{7\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{(A-B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}+\frac{(-A+B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}$$

Timed out after 60 seconds:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{(5\,A-B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{2}\,A\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(9\,A-5\,B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{\sqrt{2}\,(3\,A-2\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(A-B)\,\mathrm{Tan}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(3\,A-B)\,\mathrm{Tan}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{(-9A+5B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{(9A-5B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}-\frac{\sqrt{2}\,(3A-2B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(-3\sqrt{2}\,A+2\sqrt{2}\,B+6A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(-3\sqrt{2}\,A+2\sqrt{2}\,B+6A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Log}\left[2\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(-3\sqrt{2}\,A+2\sqrt{2}\,B+6A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(-3\sqrt{2}\,A+2\sqrt{2}\,B+6A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{(A-B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+\frac{(-A+B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{2A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}-\frac{2A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^3}{(a+a\,\mathrm{Cos}[c+dx])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(13A-9B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+dx]}}+\frac{(19A-12B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]}{2\sqrt{2}\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+dx]}}-$$

$$\frac{(7A-6B)\,\mathrm{Tan}[c+dx]}{4\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+dx]}}-\frac{(A-B)\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{2\,d\,(a+a\,\mathrm{Cos}[c+dx])^{3/2}}+\frac{(2A-B)\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+dx]}}$$

$$\frac{(13A-9B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{(-13A+9B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+\frac{(19A-12B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{2\sqrt{2}\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(19\sqrt{2}\,A-12\sqrt{2}\,B-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{4d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(19\sqrt{2}\,A-12\sqrt{2}\,B-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{4d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[2\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(19\sqrt{2}\,A-12\sqrt{2}\,B-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{8d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(19\sqrt{2}\,A-12\sqrt{2}\,B-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{8d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{(-A+B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+\frac{(A-B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(-5A\,\mathrm{Cos}\left[\frac{c}{2}\right]+4B\,\mathrm{Cos}\left[\frac{c}{2}\right]+7A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}+$$

$$\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(5A\,\mathrm{Cos}\left[\frac{c}{2}\right]-4B\,\mathrm{Cos}\left[\frac{c}{2}\right]+7A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{(a+a\,\mathrm{Cos}[c+dx])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{(43A-3B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]}{16a^2d\sqrt{a+a\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\sqrt{2}\,A\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\,\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]}{a^2d\sqrt{a+a\,\mathrm{Cos}[c+dx]}}-\frac{(A-B)\,\mathrm{Sin}[c+dx]}{4d\,(a+a\,\mathrm{Cos}[c+dx])^{5/2}}-\frac{(11A-3B)\,\mathrm{Sin}[c+dx]}{16ad\,(a+a\,\mathrm{Cos}[c+dx])^{3/2}}$$

???

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(115\,A-43\,B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{\sqrt{2}\,(5\,A-2\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A-B)\,\mathrm{Tan}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}}-\frac{(15\,A-7\,B)\,\mathrm{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(35\,A-11\,B)\,\mathrm{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{32\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}}$$

$$\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(8\,(-115\,A+43\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+8\,(115\,A-43\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right.$$

$$\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-64\,\sqrt{2}\,(5\,A-2\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$\frac{64\,i\,(5\,A-2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{64\,i\,(5\,A-2\,B)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{32\,(5\,A-2\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{32\,(5\,A-2\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+$$

$$\left.2\,(67\,A-11\,B+10\,(11\,A-3\,B)\,\mathrm{Cos}[c+d\,x]+(35\,A-11\,B)\,\mathrm{Cos}[2\,(c+d\,x)])\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{(219\,A-115\,B)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{(39\,A-20\,B)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{7\,(9\,A-5\,B)\,\mathrm{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A-B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}}-\frac{(19\,A-11\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(31\,A-15\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{32\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(8\,(219\,A-115\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+8\,(-219\,A+115\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+16\,\sqrt{2}\,(39\,A-20\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$\frac{16\,i\,(39\,A-20\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{16\,i\,(39\,A-20\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{8\,(39\,A-20\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{8\,(39\,A-20\,B)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$(158\,A-110\,B+(269\,A-169\,B)\,\text{Cos}[c+d\,x]+10\,(19\,A-11\,B)\,\text{Cos}[2\,(c+d\,x)]+63\,A\,\text{Cos}[3\,(c+d\,x)]-35\,B\,\text{Cos}[3\,(c+d\,x)])$$

$$\text{Sec}[c+d\,x]^2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x]),\ x,\ 7,\ 0\right\}$$

$$\frac{2\,a\,(9\,A+7\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{10\,a\,(A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+\frac{10\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{2\,a\,(9\,A+7\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{2\,a\,(A+B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{2\,a\,B\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{9\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(9\,A+7\,B)\,\text{Cot}[c]}{15\,d}+\frac{23\,(A+B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\right.\right.$$

$$\frac{(18\,A+19\,B)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{180\,d}+\frac{(A+B)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{B\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{72\,d}+\frac{23\,(A+B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+$$

$$\left.\frac{(18\,A+19\,B)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{180\,d}+\frac{(A+B)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}+\frac{B\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{72\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,6,\,0\right\}$$

$$\frac{6\,a\,(A+B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(7\,A+5\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{2\,a\,(7\,A+5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,(A+B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,B\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$a\Bigg(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(-\frac{3\,(A+B)\,\text{Cot}[c]}{5\,d}+\frac{(28\,A+23\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\frac{(A+B)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{B\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\right.$$

$$\left.\frac{(28\,A+23\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+\frac{(A+B)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{B\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])\;(A+B\,\text{Cos}[c+d\,x]),\;x,\;5,\;0\right\}$$

$$\frac{2\,a\,(5\,A+3\,B)\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\;2\right]}{5\,d}+\frac{2\,a\,(A+B)\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\;2\right]}{3\,d}+\frac{2\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a\,B\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(5\,A+3\,B)\,\text{Cot}[c]}{5\,d}+\frac{(A+B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{B\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{(A+B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{B\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$

$$\frac{2\,a\,(A+B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(3\,A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(A+B)\,\text{Cot}[c]}{d}+\frac{B\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{B\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}\right)-\right.$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,4,\,0\right\}$$

$$-\frac{2\,a\,(A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,A\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(-2\,A+B+B\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}\right)-\right.$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,(A+B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(A+3\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+\frac{2\,a\,A\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(A+B)\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(\frac{2\,(A+B)\,\text{Csc}[2\,c]}{d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+3\,A\,\text{Sin}[d\,x]+3\,B\,\text{Sin}[d\,x])}{3\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{7/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{2\,a\,(3\,A+5\,B)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{2\,a\,(A+B)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+$$

$$\frac{2\,a\,A\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+\frac{2\,a\,(A+B)\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(3\,A+5\,B)\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(\frac{2\,(3\,A+5\,B)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+5\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{15\,d}+\right.$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+9\,A\,\text{Sin}[d\,x]+15\,B\,\text{Sin}[d\,x])}{15\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,7,\,0\right\}$$

$$\frac{4 a^2 (9 A + 8 B) \text{EllipticE}\left[\frac{1}{2} (c + d x), 2\right]}{15 d} + \frac{4 a^2 (6 A + 5 B) \text{EllipticF}\left[\frac{1}{2} (c + d x), 2\right]}{21 d} + \frac{4 a^2 (6 A + 5 B) \sqrt{\text{Cos}[c + d x]} \text{Sin}[c + d x]}{21 d} + \frac{4 a^2 (9 A + 8 B) \text{Cos}[c + d x]^{3/2} \text{Sin}[c + d x]}{45 d} + \frac{2 a^2 (9 A + 11 B) \text{Cos}[c + d x]^{5/2} \text{Sin}[c + d x]}{63 d} + \frac{2 a B \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x]) \text{Sin}[c + d x]}{9 d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(9\,A+8\,B)\,\text{Cot}[c]}{15\,d}+\frac{(51\,A+46\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{168\,d}+\frac{(36\,A+37\,B)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{360\,d}+\frac{(A+2\,B)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{56\,d}+\frac{B\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{144\,d}+\frac{(51\,A+46\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{168\,d}+\frac{(36\,A+37\,B)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{360\,d}+\frac{(A+2\,B)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{56\,d}+\frac{B\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{144\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{15\,d}\,4\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,6,\,0\right\}$$

$$\frac{4 a^2 (4 A+3 B) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+$$

$$\frac{4 a^2 (7 A+6 B) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+\frac{4 a^2 (7 A+6 B) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{21 d}+$$

$$\frac{2 a^2 (7 A+9 B) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{35 d}+\frac{2 a B \text{Cos}[c+d x]^{3/2} (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{7 d}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\left(-\frac{(4 A+3 B) \text{Cot}[c]}{5 d}+\frac{(56 A+51 B) \text{Cos}[d x] \text{Sin}[c]}{168 d}+\frac{(A+2 B) \text{Cos}[2 d x] \text{Sin}[2 c]}{20 d}+\frac{B \text{Cos}[3 d x] \text{Sin}[3 c]}{56 d}+\right.$$

$$\left.\frac{(56 A+51 B) \text{Cos}[c] \text{Sin}[d x]}{168 d}+\frac{(A+2 B) \text{Cos}[2 c] \text{Sin}[2 d x]}{20 d}+\frac{B \text{Cos}[3 c] \text{Sin}[3 d x]}{56 d}\right)-$$

$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{7 d \sqrt{1+\text{Cot}[c]^2}} 2 B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{5 d} 2 A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10 d} 3 B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{4\,a^2\,(5\,A+4\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^2\,(2\,A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+\frac{2\,a^2\,(5\,A+7\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a\,B\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(5\,A+4\,B)\,\text{Cot}[c]}{5\,d}+\frac{(A+2\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\frac{B\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{20\,d}+\frac{(A+2\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}+\frac{B\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{20\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-\frac{1}{2\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,5,\,0\right\}$$

$$\frac{4 a^2 B \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{d}+\frac{4 a^2 (3 A+2 B) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 d}-\frac{2 a^2 (3 A-B) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 d}+\frac{2 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{d \sqrt{\text{Cos}[c+d x]}}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(-\frac{(-A+2 B+A \text{Cos}[2 c]+2 B \text{Cos}[2 c]) \text{Csc}[2 c]}{2 d}+\frac{B \text{Cos}[d x] \text{Sin}[c]}{6 d}+\frac{B \text{Cos}[c] \text{Sin}[d x]}{6 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x] \text{Sin}[d x]}{2 d}\right)-$$

$$\frac{1}{d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} 2 B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{2 d} B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}} \sqrt{1+\text{Tan}[c]^2}\right)-\left.\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x])}{\text{Cos}[c+d x]^{5/2}}, x, 5, 0\right\}$$

$$-\frac{4 a^2 A \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{d}+\frac{4 a^2 (2 A+3 B) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 d}+\frac{2 a^2 (5 A+3 B) \text{Sin}[c+d x]}{3 d \sqrt{\text{Cos}[c+d x]}}+\frac{2 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{3 d \text{Cos}[c+d x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\ (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\left(-\frac{(-4 A-B+B\,\text{Cos}[2 c])\,\text{Csc}[2 c]}{2 d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d x]^2\,\text{Sin}[d x]}{6 d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d x]\,(A\,\text{Sin}[c]+6 A\,\text{Sin}[d x]+3 B\,\text{Sin}[d x])}{6 d}\right)-$$

$$\frac{1}{3 d\sqrt{1+\text{Cot}[c]^2}}\,2 A\,(a+a\,\text{Cos}[c+d x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\,\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ -$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ +\frac{1}{2 d}\,A\,(a+a\,\text{Cos}[c+d x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d x])^2\,(A+B\,\text{Cos}[c+d x])}{\text{Cos}[c+d x]^{7/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{4 a^2\,(4 A+5 B)\,\text{EllipticE}\left[\frac{1}{2}(c+d x),\ 2\right]}{5 d}+\frac{4 a^2\,(A+2 B)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),\ 2\right]}{3 d}+$$

$$\frac{2 a^2\,(7 A+5 B)\,\text{Sin}[c+d x]}{15 d\,\text{Cos}[c+d x]^{3/2}}+\frac{4 a^2\,(4 A+5 B)\,\text{Sin}[c+d x]}{5 d\sqrt{\text{Cos}[c+d x]}}+\frac{2 a A\,(a+a\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{5 d\,\text{Cos}[c+d x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\frac{2\,(4\,A+5\,B)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{10\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+10\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{30\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(10\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+24\,A\,\text{Sin}[d\,x]+30\,B\,\text{Sin}[d\,x])}{30\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{5\,d}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4 a^2 (3 A+4 B) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+\frac{4 a^2 (6 A+7 B) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+\frac{2 a^2 (9 A+7 B) \text{Sin}[c+d x]}{35 d \text{Cos}[c+d x]^{5/2}}+$$

$$\frac{4 a^2 (6 A+7 B) \text{Sin}[c+d x]}{21 d \text{Cos}[c+d x]^{3/2}}+\frac{4 a^2 (3 A+4 B) \text{Sin}[c+d x]}{5 d \sqrt{\text{Cos}[c+d x]}}+\frac{2 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{7 d \text{Cos}[c+d x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\ (a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\left(\frac{2 (3 A+4 B) \text{Csc}[2 c]}{5 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x]^4 \text{Sin}[d x]}{14 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x]^3 (5 A \text{Sin}[c]+14 A \text{Sin}[d x]+7 B \text{Sin}[d x])}{70 d}+\right.$$

$$\frac{\text{Sec}[c] \text{Sec}[c+d x]^2 (42 A \text{Sin}[c]+21 B \text{Sin}[c]+60 A \text{Sin}[d x]+70 B \text{Sin}[d x])}{210 d}+$$

$$\left.\frac{\text{Sec}[c] \text{Sec}[c+d x] (30 A \text{Sin}[c]+35 B \text{Sin}[c]+63 A \text{Sin}[d x]+84 B \text{Sin}[d x])}{105 d}\right)-$$

$$\frac{1}{7 d \sqrt{1+\text{Cot}[c]^2}} 2 A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10 d} 3 A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{5 d} 2 B (a+a \text{Cos}[c+d x])^2 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x]),\ x,\ 8,\ 0\}$$

$$\frac{4\,a^3\,(17\,A+15\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{4\,a^3\,(121\,A+105\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{231\,d}+\frac{4\,a^3\,(121\,A+105\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+\frac{4\,a^3\,(17\,A+15\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{20\,a^3\,(22\,A+21\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{693\,d}+\frac{2\,a^2\,(11\,A+15\,B)\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{99\,d}+\frac{2\,a\,B\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{11\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(17\,A+15\,B)\,\text{Cot}[c]}{30\,d}+\frac{(2134\,A+1953\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{7392\,d}+\frac{(73\,A+75\,B)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\right.$$

$$\frac{3\,(44\,A+63\,B)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{4928\,d}+\frac{(A+3\,B)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\frac{B\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{704\,d}+$$

$$\frac{(2134\,A+1953\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{7392\,d}+\frac{(73\,A+75\,B)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+$$

$$\left.\frac{3\,(44\,A+63\,B)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{4928\,d}+\frac{(A+3\,B)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}+\frac{B\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{704\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{22\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{60\,d}\,17\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{4\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x]),\ x,\ 7,\ 0\right\}$$

$$\frac{4\,a^3\,(21\,A+17\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{4\,a^3\,(13\,A+11\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+$$
$$\frac{4\,a^3\,(13\,A+11\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{4\,a^3\,(24\,A+23\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$
$$\frac{2\,a^2\,(9\,A+13\,B)\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,a\,B\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(21\,A+17\,B)\,\text{Cot}[c]}{30\,d}+\frac{(107\,A+97\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{(54\,A+73\,B)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\frac{(A+3\,B)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{B\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\frac{(107\,A+97\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+\frac{(54\,A+73\,B)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+\frac{(A+3\,B)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}+\frac{B\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{20\,d}\,7\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{60\,d}\,17\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{4 a^3 (9 A+7 B) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+$$

$$\frac{4 a^3 (21 A+13 B) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+\frac{4 a^3 (42 A+41 B) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{105 d}+$$

$$\frac{2 a^2 (7 A+11 B) \sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d}+\frac{2 a B \sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(-\frac{(9 A+7 B) \text{Cot}[c]}{10 d}+\frac{(84 A+107 B) \text{Cos}[d x] \text{Sin}[c]}{336 d}+\frac{(A+3 B) \text{Cos}[2 d x] \text{Sin}[2 c]}{40 d}+\frac{B \text{Cos}[3 d x] \text{Sin}[3 c]}{112 d}+\right.$$

$$\left.\frac{(84 A+107 B) \text{Cos}[c] \text{Sin}[d x]}{336 d}+\frac{(A+3 B) \text{Cos}[2 c] \text{Sin}[2 d x]}{40 d}+\frac{B \text{Cos}[3 c] \text{Sin}[3 d x]}{112 d}\right)-$$

$$\frac{1}{2 d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{42 d \sqrt{1+\text{Cot}[c]^2}} 13 B (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{20 d} 9 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{20 d} 7 B (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{4\,a^3\,(5\,A+9\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^3\,(5\,A+3\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}-\frac{4\,a^3\,(5\,A-6\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}-\frac{2\,a^2\,(5\,A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(5\,A+18\,B+15\,A\,\text{Cos}[2\,c]+18\,B\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{(A+3\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{12\,d}+\right.$$

$$\left.\frac{B\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{40\,d}+\frac{(A+3\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{12\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{4\,d}+\frac{B\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{40\,d}\right)-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-\frac{1}{4\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{20\,d}\,9\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,6,\,0\right\}$$

$$-\frac{4 a^3 (A-B)\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{d}+\frac{20 a^3 (A+B)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 d}-\frac{4 a^3 (4 A+B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 d}+$$

$$\frac{2 a^2 (7 A+3 B)(a+a\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{3 d\sqrt{\text{Cos}[c+d x]}}+\frac{2 a A (a+a\,\text{Cos}[c+d x])^2\,\text{Sin}[c+d x]}{3 d\,\text{Cos}[c+d x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\,(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(-\frac{(-5 A+B+A\,\text{Cos}[2 c]+3 B\,\text{Cos}[2 c])\,\text{Csc}[2 c]}{4 d}+\frac{B\,\text{Cos}[d x]\,\text{Sin}[c]}{12 d}+\frac{B\,\text{Cos}[c]\,\text{Sin}[d x]}{12 d}+\right.$$

$$\left.\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d x]^2\,\text{Sin}[d x]}{12 d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d x]\,(A\,\text{Sin}[c]+9 A\,\text{Sin}[d x]+3 B\,\text{Sin}[d x])}{12 d}\right)-$$

$$\frac{1}{6 d\sqrt{1+\text{Cot}[c]^2}}5 A (a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\,\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{6 d\sqrt{1+\text{Cot}[c]^2}}5 B (a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\,\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{4 d}A (a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{4 d}B (a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{7/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{4\,a^3\,(9\,A+5\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^3\,(3\,A+5\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+$$

$$\frac{4\,a^3\,(21\,A+20\,B)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(9\,A+5\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(-\frac{(-36\,A-25\,B+5\,B\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{20\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+15\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{60\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(15\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+54\,A\,\text{Sin}[d\,x]+45\,B\,\text{Sin}[d\,x])}{60\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20\,d}\,9\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{4\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4 a^3 (7 A+9 B) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+\frac{4 a^3 (13 A+21 B) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+\frac{4 a^3 (41 A+42 B) \text{Sin}[c+d x]}{105 d \text{Cos}[c+d x]^{3/2}}+$$

$$\frac{4 a^3 (7 A+9 B) \text{Sin}[c+d x]}{5 d \sqrt{\text{Cos}[c+d x]}}+\frac{2 a^2 (11 A+7 B) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d \text{Cos}[c+d x]^{5/2}}+\frac{2 a A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d \text{Cos}[c+d x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\ (a+a \text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(\frac{(7 A+9 B) \text{Csc}[2 c]}{5 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x]^4 \text{Sin}[d x]}{28 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x]^3 (5 A \text{Sin}[c]+21 A \text{Sin}[d x]+7 B \text{Sin}[d x])}{140 d}+\right.$$

$$\frac{\text{Sec}[c] \text{Sec}[c+d x]^2 (63 A \text{Sin}[c]+21 B \text{Sin}[c]+130 A \text{Sin}[d x]+105 B \text{Sin}[d x])}{420 d}+$$

$$\left.\frac{\text{Sec}[c] \text{Sec}[c+d x] (130 A \text{Sin}[c]+105 B \text{Sin}[c]+294 A \text{Sin}[d x]+378 B \text{Sin}[d x])}{420 d}\right)-$$

$$\frac{1}{42 d \sqrt{1+\text{Cot}[c]^2}} 13 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{2 d \sqrt{1+\text{Cot}[c]^2}} B (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20 d} 7 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20 d} 9 B (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{4\,a^3\,(17\,A+21\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{4\,a^3\,(11\,A+13\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+$$
$$\frac{4\,a^3\,(23\,A+24\,B)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{4\,a^3\,(11\,A+13\,B)\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(17\,A+21\,B)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$
$$\frac{2\,a^2\,(13\,A+9\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\frac{(17\,A+21\,B)\,\text{Csc}[2\,c]}{15\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,\text{Sin}[d\,x]}{36\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(7\,A\,\text{Sin}[c]+27\,A\,\text{Sin}[d\,x]+9\,B\,\text{Sin}[d\,x])}{252\,d}+\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(55\,A\,\text{Sin}[c]+65\,B\,\text{Sin}[c]+119\,A\,\text{Sin}[d\,x]+147\,B\,\text{Sin}[d\,x])}{210\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(135\,A\,\text{Sin}[c]+45\,B\,\text{Sin}[c]+238\,A\,\text{Sin}[d\,x]+189\,B\,\text{Sin}[d\,x])}{1260\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(238\,A\,\text{Sin}[c]+189\,B\,\text{Sin}[c]+330\,A\,\text{Sin}[d\,x]+390\,B\,\text{Sin}[d\,x])}{1260\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+$$

$$\frac{1}{60\,d}\,17\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20\,d}\,7\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$-\frac{3\,(5\,A-7\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a\,d}+\frac{5\,(A-B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}+$$

$$\frac{5\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{(5\,A-7\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{2\,(5\,A-5\,B+10\,A\,\mathrm{Cos}[c]-16\,B\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{4\,(A-B)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{2\,B\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{4\,(A-B)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{2\,B\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}\right)-$$

$$\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(10\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{3\,(A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a\,d}-\frac{(3\,A-5\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}-\frac{(3\,A-5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \sqrt{\text{Cos}[c+d x]}\left(-\frac{2(A-B)(1+2\text{Cos}[c])\text{Csc}[c]}{d}+\frac{4 B\text{Cos}[d x]\text{Sin}[c]}{3 d}-\frac{2\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]\left(A\text{Sin}\left[\frac{d x}{2}\right]-B\text{Sin}\left[\frac{d x}{2}\right]\right)}{d}+\frac{4 B\text{Cos}[c]\text{Sin}[d x]}{3 d}\right)}{a+a\text{Cos}[c+d x]}+$$

$$\left(2 A\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\text{Csc}[c]\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d(a+a\text{Cos}[c+d x])\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(10 B\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\text{Csc}[c]\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3 d(a+a\text{Cos}[c+d x])\sqrt{1+\text{Cot}[c]^2}\right)-\frac{1}{d(a+a\text{Cos}[c+d x])}3 A\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\text{Cos}[c]^2\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{d(a+a\text{Cos}[c+d x])}3 B\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\text{Cos}[c]^2\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}(A+B\text{Cos}[c+d x])}{a+a\text{Cos}[c+d x]},x,4,0\right\}$$

$$-\frac{(A-3B)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a d}+\frac{(A-B)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{a d}+\frac{(A-B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{d(a+a\text{Cos}[c+d x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \sqrt{\text{Cos}[c+d x]}\left(-\frac{2(-A+B+2 B \text{Cos}[c]) \text{Csc}[c]}{d}+\frac{2 \text{Sec}\left[\frac{c}{2}\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]\left(A \text{Sin}\left[\frac{d x}{2}\right]-B \text{Sin}\left[\frac{d x}{2}\right]\right)}{d}\right)}{a+a \text{Cos}[c+d x]}-$$

$$\left(2 A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/ \left(d(a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(2 B \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/$$

$$\left(d(a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d(a+a \text{Cos}[c+d x])} A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d(a+a \text{Cos}[c+d x])} 3 B \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{\sqrt{\text{Cos}[c+d x]}(a+a \text{Cos}[c+d x])}, x, 4, 0\right\}$$

$$\frac{(A-B) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{a d}+\frac{(A+B) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{a d}-\frac{(A-B) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{d(a+a \text{Cos}[c+d x])}$$

$$-\frac{1}{3\,a\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(1+\text{Cos}[c+d\,x]\right)\,\sqrt{\text{Csc}[c]^2}}$$

$$e^{-i\,d\,x}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(6\,(A+B)\,e^{i\,d\,x}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2}\right.$$

$$\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,+$$

$$(A-B)\,\sqrt{\text{Csc}[c]^2}\,\left(-3\,\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Csc}[c]\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\,+\right.$$

$$e^{i\,d\,x}\,\left(-\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Csc}[c]\,\text{Hypergeometric2F1}\left[\frac{1}{2},\,\frac{3}{4},\,\frac{7}{4},\,-e^{2\,i\,(c+d\,x)}\right]\,+\right.$$

$$\left.\left.\left.6\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\sqrt{\text{Cos}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Csc}[c]+\text{Sec}\left[\frac{c}{2}\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])},\,x,\,5,\,0\right\}$$

$$-\frac{(3\,A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}-\frac{(A-B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+$$

$$\frac{(3\,A-B)\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \sqrt{\text{Cos}[c+d x]}\left(\frac{2(3 A-B)}{d(-\text{Sin}[c]+\text{Sin}[2 c])}-\frac{2 \text{Sec}\left[\frac{3 c}{2}\right]\left(-3 A \text{Sin}\left[\frac{3 d x}{2}\right]+B \text{Sin}\left[\frac{3 d x}{2}\right]+2 A \text{Sin}\left[c-\frac{d x}{2}\right]+A \text{Sin}\left[2 c+\frac{d x}{2}\right]-B \text{Sin}\left[2 c+\frac{d x}{2}\right]\right)}{d\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Cos}\left[\frac{3 c}{2}+\frac{3 d x}{2}\right]\right)}\right)}{a+a \text{Cos}[c+d x]}+$$

$$\left(2 A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2}\, \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/ \left(d(a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(2 B \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2}\, \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/$$

$$\left(d(a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d(a+a \text{Cos}[c+d x])} 3 A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d(a+a \text{Cos}[c+d x])} B \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{\text{Cos}[c+d x]^{5/2}(a+a \text{Cos}[c+d x])}, x, 6, 0\right\}$$

$$\frac{3\,(A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}+\frac{(5\,A-3\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}+\frac{(5\,A-3\,B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{3\,(A-B)\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{(A-B)\,(2+\mathrm{Cos}[c])\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{4\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(A\,\mathrm{Sin}[c]-3\,A\,\mathrm{Sin}[d\,x]+3\,B\,\mathrm{Sin}[d\,x])}{3\,d}\right)-\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+\left(2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{7\,(5\,A-8\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a^2\,d}+\frac{5\,(2\,A-3\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}+\frac{5\,(2\,A-3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-$$

$$\frac{7\,(5\,A-8\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a^2\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(2\,A-3\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(40\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(15\,A-20\,B+20\,A\,\text{Cos}[c]-36\,B\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+\frac{8\,(A-2\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{4\,B\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{5\,d}+\right.$$

$$\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(3\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-4\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+$$

$$\left.\frac{8\,(A-2\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{4\,B\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{5\,d}-\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+$$

$$\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}\,14\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\;\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^2}112\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\Bigg(\Bigg(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Bigg)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$\frac{(4\,A-7\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}-\frac{5\,(A-2\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}-$$

$$\frac{5\,(A-2\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(4\,A-7\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(20\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(40\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(2\,A-3\,B+2\,A\,\mathrm{Cos}[c]-4\,B\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}+\frac{8\,B\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(2\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-3\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{8\,B\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{(A-4\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^2\,d}+\frac{(2\,A-5\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}+$$

$$\frac{(A-B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(2\,A-5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(8\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(-A+2\,B+2\,B\,\text{Cos}[c])\,\text{Csc}[c]}{d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-2\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\right.$$

$$\left.\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}8\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{B\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]}{a^2\,d}+\frac{(A+2\,B)\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]}{3\,a^2\,d}+$$

$$\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(8\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}\left(\frac{4\,B\,\text{Csc}[c]}{d}+\frac{4\,B\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\text{Cos}[c+d\,x])^2}+$$

$$\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}$$

$$2\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$\frac{A\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]}{a^2\,d}+\frac{(2\,A+B)\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]}{3\,a^2\,d}-\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(8\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}\left(-\frac{4\,A\,\text{Csc}[c]}{d}-\frac{4\,A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\text{Cos}[c+d\,x])^2}-$$

$$\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}$$

$$2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{(4\,A-B)\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]}{a^2\,d}-\frac{(5\,A-2\,B)\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]}{3\,a^2\,d}+$$

$$\frac{(4\,A-B)\,\text{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(5\,A-2\,B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(20\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(8\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(4\,A-B)}{d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-4\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+2\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+2\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\left.\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$\frac{(7\,A-4\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{5\,(2\,A-B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+\frac{5\,(2\,A-B)\,\text{Sin}[c+d\,x]}{3\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{(7\,A-4\,B)\,\text{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(7\,A-4\,B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(40\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}\left(\frac{2\,(4\,A-27\,A\,\text{Cos}[c]+12\,B\,\text{Cos}[c]+2\,A\,\text{Cos}[2\,c])\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{3\,d\left(-2\,\text{Sin}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{3\,c}{2}\right]\right)}+\right.$$

$$\frac{8\,A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{8\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+$$

$$\left(4\,\text{Sec}\left[\frac{3\,c}{2}\right]\left(-2\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+2\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-21\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+12\,B\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+9\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-5\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+2\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-2\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+10\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-5\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)\right)\Big/\left(3\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)\right)+$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(A\,\text{Sin}\left[\frac{c}{2}\right]+B\,\text{Sin}\left[\frac{c}{2}\right]+3\,A\,\text{Sin}\left[\frac{3\,c}{2}\right]-B\,\text{Sin}\left[\frac{3\,c}{2}\right]+2\,A\,\text{Sin}\left[\frac{c}{2}-d\,x\right]-2\,A\,\text{Sin}\left[\frac{c}{2}+d\,x\right]\right)}{3\,d}-$$

$$\left.\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}14\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}8\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{9/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$-\frac{7\,(17\,A-33\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(11\,A-21\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}+$$

$$\frac{(11\,A-21\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a^3\,d}-\frac{7\,(17\,A-33\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^3\,d}+$$

$$\frac{(A-B)\,\text{Cos}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(7\,A-12\,B)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{3\,(11\,A-21\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(44\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(84\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(59\,A-99\,B+60\,A\,\text{Cos}[c]-132\,B\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+\frac{16\,(A-3\,B)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{8\,B\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{5\,d}+\right.$$

$$\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(59\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-99\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-24\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,(A-3\,B)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{8\,B\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{5\,d}-$$

$$\left.\frac{4\,(19\,A-24\,B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}\,238\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\,\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left(\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}462\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$\frac{7\,(7\,A-17\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}-\frac{(13\,A-33\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-\frac{(13\,A-33\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,a^3\,d}+$$

$$\frac{(A-B)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(A-2\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{7\,(7\,A-17\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(52\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(44\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{4\,(29\,A-59\,B+20\,A\,\mathrm{Cos}[c]-60\,B\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{16\,B\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(29\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-59\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(14\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-19\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,B\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,(14\,A-19\,B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-$$

$$\left.\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$-\frac{(9\,A-49\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(3\,A-13\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(3\,A-8\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(3\,A-13\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(52\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}\left(-\frac{4\,(-9\,A+29\,B+20\,B\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-29\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-14\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\left.\frac{4\,(9\,A-14\,B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$-\frac{(A+9\,B)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(A+3\,B)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}+$$

$$\frac{(A-B)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{(A-6\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{(A+9\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(A+9\,B)\,\text{Csc}[c]}{5\,d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(4\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-9\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\right.$$

$$\left.\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+9\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,(4\,A-9\,B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+$$

$$\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}18\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{(A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(A+4\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(A-B)\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\right.$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{4\,(A+4\,B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{(9\,A+B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(3\,A+B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}-\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(6\,A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(9\,A+B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(9\,A+B)\,\mathrm{Csc}[c]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(6\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\right.$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{4\,(6\,A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{(49\,A-9\,B)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}-\frac{(13\,A-3\,B)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+\frac{(49\,A-9\,B)\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(8\,A-3\,B)\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-3\,B)\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\left(\frac{4\,(49\,A-9\,B)}{5\,d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-49\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+20\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+29\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-9\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{5\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\left.\frac{4\,(11\,A-6\,B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left(\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}18\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{7\,(17\,A-7\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(33\,A-13\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}+$$

$$\frac{(33\,A-13\,B)\,\text{Sin}[c+d\,x]}{6\,a^3\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{7\,(17\,A-7\,B)\,\text{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3}-$$

$$\frac{(2\,A-B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{7\,(17\,A-7\,B)\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(44\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\Bigg(52\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}\,\Bigg(\frac{2\,(40\,A-417\,A\,\text{Cos}[c]+147\,B\,\text{Cos}[c]+20\,A\,\text{Cos}[2\,c])\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{15\,d\left(-2\,\text{Sin}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{3\,c}{2}\right]\right)}+$$

$$\frac{16\,A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(16\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-11\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+$$

$$\Bigg(4\,\text{Sec}\left[\frac{3\,c}{2}\right]\Bigg(-64\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+44\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-357\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+147\,B\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+128\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-$$

$$38\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+64\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-44\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+165\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-65\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\Bigg)\Bigg)\Bigg/$$

$$\left(15\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)\right)+\frac{1}{15\,d}4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]$$

$$\left(-6\,A\,\text{Sin}\left[\frac{c}{2}\right]+11\,B\,\text{Sin}\left[\frac{c}{2}\right]+26\,A\,\text{Sin}\left[\frac{3\,c}{2}\right]-11\,B\,\text{Sin}\left[\frac{3\,c}{2}\right]+10\,A\,\text{Sin}\left[\frac{c}{2}-d\,x\right]-10\,A\,\text{Sin}\left[\frac{c}{2}+d\,x\right]\right)-$$

$$\frac{4\,(16\,A-11\,B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\Bigg)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}238\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\,\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Bigg/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}98\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,5,\,0\right\}$$

$$\frac{5\sqrt{a}\,(8\,A+7\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+\frac{5\,a\,(8\,A+7\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{5\,a\,(8\,A+7\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,(8\,A+7\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,B\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{384\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left(-15\,i\,(8\,A+7\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$

$$15\,i\,(8\,A+7\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$120\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$105\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$224\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$160\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+48\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+78\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+$$

$$32\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}(c+d\,x)\right]+16\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\left.\text{Sin}\left[\frac{5}{2}(c+d\,x)\right]+12\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,4,\,0\right\}$$

$$\frac{\sqrt{a}\,(6A+5B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{8d}+\frac{a\,(6A+5B)\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{8d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+$$
$$\frac{a\,(6A+5B)\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{12d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,B\,\text{Cos}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{3d\,\sqrt{a+a\,\text{Cos}[c+dx]}}$$
$$\frac{1}{48\sqrt{2}\,d\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$
$$\left(-3i\,(6A+5B)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3i\,(6A+5B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$
$$18A\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$15B\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$24\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+28\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$
$$\text{Sin}\left[\frac{1}{2}(c+dx)\right]+12\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+6\sqrt{2}\,B$$
$$\left.\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+4\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{5}{2}(c+dx)\right]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}\,(A+B\,\text{Cos}[c+dx]),\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{a}\,(4A+3B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{4d}+\frac{a\,(4A+3B)\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,B\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{2d\,\sqrt{a+a\,\text{Cos}[c+dx]}}$$
$$\frac{1}{8\sqrt{2}\,d\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$
$$\left(-i\,(4A+3B)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\,(4A+3B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$
$$4A\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$3B\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$8\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+4\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$
$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]+2\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+dx]}\,(A+B\,\text{Cos}[c+dx])}{\sqrt{\text{Cos}[c+dx]}},\ x,\ 2,\ 0\right\}$$

$$\frac{\sqrt{a}\,(2A+B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{d}+\frac{a\,B\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{d\,\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{2\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-i\,(2\,A+B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$
$$i\,(2\,A+B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$2\,A\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$B\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$\left.2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,2,\,0\right\}$$

$$\frac{2\,\sqrt{a}\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,a\,A\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$
$$\frac{1}{\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\,\left(i\,B\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]-\right.$$
$$i\,B\,\text{Cos}[c+d\,x]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$
$$\left.2\,\sqrt{2}\,A\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,5,\,0\right\}$$

$$\frac{a^{3/2}\,(88\,A+75\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+$$
$$\frac{a^2\,(88\,A+75\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(88\,A+75\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{a^2\,(8\,A+9\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,B\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\,a\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$
$$\Bigg(-3\,i\,(88\,A+75\,B)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]+$$
$$3\,i\,(88\,A+75\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$
$$264\,A\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$225\,B\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$416\sqrt{2}\,A\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+$$
$$384\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+144\sqrt{2}\,A\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$
$$\text{Sin}\left[\frac{3}{2}(c+dx)\right]+126\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+$$
$$32\sqrt{2}\,A\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{5}{2}(c+dx)\right]+48\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$
$$\text{Sin}\left[\frac{5}{2}(c+dx)\right]+12\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{7}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+dx]}\,(a+a\,\text{Cos}[c+dx])^{3/2}\,(A+B\,\text{Cos}[c+dx]),\ x,\ 4,\ 0\right\}$$

$$\frac{a^{3/2}\,(14\,A+11\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{8\,d}+\frac{a^2\,(14\,A+11\,B)\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+$$
$$\frac{a^2\,(6\,A+7\,B)\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,B\,\text{Cos}[c+dx]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,d}$$
$$\frac{1}{48\sqrt{2}\,d\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\,a\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$
$$\Bigg(-3\,i\,(14\,A+11\,B)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]+$$
$$3\,i\,(14\,A+11\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$
$$42\,A\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$33\,B\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$
$$72\sqrt{2}\,A\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+52\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$
$$\text{Sin}\left[\frac{1}{2}(c+dx)\right]+12\sqrt{2}\,A\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+18\sqrt{2}\,B$$
$$\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+4\sqrt{2}\,B\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{5}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+dx])^{3/2}\,(A+B\,\text{Cos}[c+dx])}{\sqrt{\text{Cos}[c+dx]}},\ x,\ 3,\ 0\right\}$$

$$\frac{a^{3/2}\,(12\,A+7\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{4\,d}+$$

$$\frac{a^2\,(4\,A+5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}$$

$$\frac{1}{8\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-i\,(12\,A+7\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$

$$i\,(12\,A+7\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$12\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$7\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$8\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,3,\,0\right\}$$

$$\frac{a^{3/2}\,(2\,A+3\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a^2\,(2\,A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,\sqrt{2}\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}$$

$$i\,(2\,A+3\,B)\,e^{\frac{i\,d\,x}{2}}\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.$$

$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\sqrt{e^{-i\,d\,x}\left(\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]\right)}+\frac{a\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,(2\,A+B\,\text{Cos}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,3,\,0\right\}$$

$$\frac{2\,a^{3/2}\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,a^2\,(4\,A+3\,B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{1}{12\sqrt{2}\, d\, \text{Cos}[c+d x]^{3/2} \sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,(a\,(1+\text{Cos}[c+d x]))^{3/2}$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \left(\frac{3}{2} i B e^{-\frac{3}{2} i d x} \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\right.$$

$$\text{Cos}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 -$$

$$\frac{3}{2} i B e^{-\frac{3}{2} i d x} \text{Cos}\left[\frac{c}{2}\right]^2 \text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]$$

$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 +$$

$$\frac{3}{2} i B e^{-\frac{3}{2} i d x} \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]$$

$$\text{Sin}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 -$$

$$\frac{3}{2} i B e^{-\frac{3}{2} i d x} \text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 + 4 A\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$20 A\,\text{Cos}[c+d x]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$\left.12 B\,\text{Cos}[c+d x]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d x]^{3/2}\,(a+a\,\text{Cos}[c+d x])^{5/2}\,(A+B\,\text{Cos}[c+d x]),\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}\,(326 A+283 B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]}{128 d} + \frac{a^3\,(326 A+283 B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{128 d\sqrt{a+a\,\text{Cos}[c+d x]}} +$$

$$\frac{a^3\,(326 A+283 B)\,\text{Cos}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{192 d\sqrt{a+a\,\text{Cos}[c+d x]}} + \frac{a^3\,(170 A+157 B)\,\text{Cos}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{240 d\sqrt{a+a\,\text{Cos}[c+d x]}} +$$

$$\frac{a^2\,(10 A+13 B)\,\text{Cos}[c+d x]^{5/2}\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{40 d} + \frac{a B\,\text{Cos}[c+d x]^{5/2}\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{3840\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-15\,i\,(326\,A+283\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$

$$15\,i\,(326\,A+283\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\,\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$4890\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$4245\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$8000\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+7168\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2700\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$2550\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+800\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+976\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+$$

$$120\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+300\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+48\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x]),\ x,\ 5,\ 0\right\}$$

$$\frac{a^{5/2}\,(200\,A+163\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+$$

$$\frac{a^3\,(200\,A+163\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^3\,(104\,A+95\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(8\,A+11\,B)\,\text{Cos}[c+d\,x]^{3/2}\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d}+\frac{a\,B\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,(200\,A+163\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(200\,A+163\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$600\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$489\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$992\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$
$$800\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+240\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+270\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$32\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+80\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{a^{5/2}\,(38\,A+25\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{8\,d}+\frac{a^3\,(54\,A+49\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{a^2\,(2\,A+3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{a\,B\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{48\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,(38\,A+25\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(38\,A+25\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$114\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$75\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$120\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+124\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+12\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+30\sqrt{2}\,B$$
$$\left.\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{(2A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}-\frac{\sqrt{2}\,(A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}+\frac{B\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{2\sqrt{a\,(1+\text{Cos}[c+dx])}}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]\left(\frac{1}{d\sqrt{1+e^{2i(c+dx)}}}\sqrt{2}\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\left(2A\,dx-B\,dx-i\,(2A-B)\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+\right.\right.$$
$$2i\sqrt{2}\,(A-B)\,\text{Log}\left[2\sqrt{2}\,(-A+B)\left(1+e^{i(c+dx)}\right)\right]+2i\,A\,\text{Log}\left[-2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$i\,B\,\text{Log}\left[-2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-2i\sqrt{2}\,A\,\text{Log}\left[d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]+$$
$$\left.\left.2i\sqrt{2}\,B\,\text{Log}\left[d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)+\frac{4B\sqrt{\text{Cos}[c+dx]}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}},\ x,\ 3,\ 0\right\}$$

$$\frac{2B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}+\frac{\sqrt{2}\,(A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}$$

$$\frac{1}{\sqrt{2}\,d\sqrt{1+e^{2i(c+dx)}}\,\sqrt{a\,(1+\text{Cos}[c+dx])}}\left(1+e^{i(c+dx)}\right)\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}$$
$$\left(B\,dx-i\,B\,\text{ArcSinh}\left[e^{i(c+dx)}\right]-i\sqrt{2}\,(A-B)\,\text{Log}\left[\sqrt{2}\,(-A+B)\left(1+e^{i(c+dx)}\right)\right]+i\,B\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+\right.$$
$$\left.i\sqrt{2}\,A\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-i\sqrt{2}\,B\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^{3/2}\,(A+B\,\text{Cos}[c+dx])}{(a+a\,\text{Cos}[c+dx])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(2A-3B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{a^{3/2}\,d}-\frac{(5A-9B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{2\sqrt{2}\,a^{3/2}\,d}+$$
$$\frac{(A-B)\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{2d\,(a+a\,\text{Cos}[c+dx])^{3/2}}-\frac{(A-3B)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(4\,A\,d\,x-6\,B\,d\,x-2\,i\,(2\,A-3\,B)\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\,(5\,A-9\,B)\,\text{Log}\left[\sqrt{2}\,(-5\,A+9\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+4\,i\,A\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-6\,i\,B\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+9\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,(-A+3\,B+2\,B\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{(A-5\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}+\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(4\,B\,d\,x-4\,i\,B\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(A-5\,B)\,\text{Log}\left[\sqrt{2}\,(A-5\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+4\,i\,B\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{2\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{(3\,A+B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-\frac{i\,(3\,A+B)\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}-\frac{(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 3,\ 0\right\}$$

$$-\frac{(7\,A-3\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A-B)\,\mathrm{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{i\,(7\,A-3\,B)\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\mathrm{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}+\frac{(4\,A+(5\,A-B)\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,B\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}+\frac{(3\,A-43\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}+\frac{(A-B)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}}+\frac{(3\,A-11\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{8\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}}\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(32\,B\,d\,x-32\,i\,B\,\mathrm{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(3\,A-43\,B)\,\mathrm{Log}\left[\sqrt{2}\,(3\,A-43\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,B\,\mathrm{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,\sqrt{2}\,A\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,B\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,(3\,A-11\,B+(7\,A-15\,B)\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,(A+B\,\mathrm{Cos}[c+d\,x])}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{(5\,A+3\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A-B)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}}+\frac{(5\,A+3\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{4\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(-\frac{i\,(5\,A+3\,B)\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}+\frac{\sqrt{\text{Cos}[c+d\,x]}\,(5\,A+3\,B+(A+7\,B)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{7/2}\,d}+\frac{(5\,A-177\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,\sqrt{2}\,a^{7/2}\,d}+\frac{(A-B)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}}+\frac{(5\,A-17\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{(5\,A-49\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{16\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(128\,B\,d\,x-128\,i\,B\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(5\,A-177\,B)\,\text{Log}\left[\sqrt{2}\,(5\,A-177\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+128\,i\,B\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-177\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{\sqrt{\text{Cos}[c+d\,x]}\,(97\,A-541\,B+4\,(25\,A-181\,B)\,\text{Cos}[c+d\,x]+(67\,A-247\,B)\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{12\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{6\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(5\,A+7\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{6\,a\,(A+B)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,(5\,A+7\,B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,(A+B)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,A\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{210} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \left(-\frac{63\sqrt{2} A e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\frac{63\sqrt{2} B e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\frac{50 A\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{70 B\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{2\sqrt{\text{Sec}[c+d x]}\left(63(A+B)\text{Cos}[d x]\text{Csc}[c]+\left(5(5A+7B)+21(A+B)\text{Sec}[c+d x]+15 A\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])(A+B\text{Cos}[c+d x])\text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{2a(3A+5B)\sqrt{\text{Cos}[c+d x]}\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+\frac{2a(A+B)\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+\frac{2a(3A+5B)\sqrt{\text{Sec}[c+d x]}\text{Sin}[c+d x]}{5d}+\frac{2a(A+B)\text{Sec}[c+d x]^{3/2}\text{Sin}[c+d x]}{3d}+\frac{2aA\text{Sec}[c+d x]^{5/2}\text{Sin}[c+d x]}{5d}$$

$$\frac{1}{30} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \left(-\frac{9\sqrt{2} A e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\frac{15\sqrt{2} B e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\frac{10 A\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{10 B\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{2\sqrt{\text{Sec}[c+d x]}\left(3(3A+5B)\text{Cos}[d x]\text{Csc}[c]+(5(A+B)+3A\text{Sec}[c+d x])\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])(A+B\text{Cos}[c+d x])\text{Sec}[c+d x]^{5/2}, x, 6, 0\right\}$$

$$-\frac{2\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a\,(A+3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,(A+B)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{d}+\frac{2\,a\,A\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{3\,d\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,a\,e^{-i\,(c+d\,x)}\,(1+\text{Cos}[c+d\,x])\,\Bigg((A+3\,B)\,e^{i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-i\,\Big(-3\,A-3\,B-A\,e^{i\,(c+d\,x)}-3\,A\,e^{2\,i\,(c+d\,x)}-3\,B\,e^{2\,i\,(c+d\,x)}+A\,e^{3\,i\,(c+d\,x)}+3\,(A+B)\,\left(1+e^{2\,i\,(c+d\,x)}\right)^{3/2}\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\Big)\Bigg)\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\text{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a\,A\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{d}$$

$$\frac{1}{d}2\,a\,\Bigg((A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{1}{2}\,i\,e^{-i\,(c+d\,x)}\,\left(-2\,A+B+B\,e^{2\,i\,(c+d\,x)}+2\,(A-B)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)\Bigg)\,\sqrt{\text{Sec}[c+d\,x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{2\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a\,(3\,A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,B\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,d}a\,\sqrt{\text{Sec}[c+d\,x]}\,\Bigg(2\,(3\,A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+6\,i\,(A+B)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-3\,i\,(A+B)+B\,\text{Sin}[c+d\,x])\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{2\,a\,(5\,A+3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{2\,a\,B\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(A+B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{30\,d}a\sqrt{\text{Sec}[c+d\,x]}\left(20\,(A+B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+12\,i\,(5\,A+3\,B)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(10\,(A+B)\,\text{Sin}[c+d\,x]+3\,(-2\,i\,(5\,A+3\,B)+B\,\text{Sin}[2\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{6\,a\,(A+B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(7\,A+5\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a\,B\,\text{Sin}[c+d\,x]}{7\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a\,(A+B)\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(7\,A+5\,B)\,\text{Sin}[c+d\,x]}{21\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{420\,d}a\sqrt{\text{Sec}[c+d\,x]}\left(40\,(7\,A+5\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+504\,i\,(A+B)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(5\,(28\,A+23\,B)\,\text{Sin}[c+d\,x]+3\,(-84\,i\,(A+B)+14\,(A+B)\,\text{Sin}[2\,(c+d\,x)]+5\,B\,\text{Sin}[3\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{11/2},\,x,\,9,\,0\right\}$$

$$-\frac{4\,a^2\,(8\,A+9\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{4\,a^2\,(5\,A+6\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a^2\,(8\,A+9\,B)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{4\,a^2\,(5\,A+6\,B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{4\,a^2\,(8\,A+9\,B)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{2\,a^2\,(11\,A+9\,B)\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}$$

$$-\frac{1}{15\,d}4\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4-$$

$$\frac{1}{5\sqrt{2}\,d}3\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4+$$

$$\frac{5\,A\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{2\,B\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}}{7\,d}+$$

$$(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{(8\,A+9\,B)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}[c]}{15\,d}+\right.$$

$$\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Sin}[d\,x]}{18\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,(7\,A\,\mathrm{Sin}[c]+18\,A\,\mathrm{Sin}[d\,x]+9\,B\,\mathrm{Sin}[d\,x])}{126\,d}+$$

$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(56\,A\,\mathrm{Sin}[c]+63\,B\,\mathrm{Sin}[c]+75\,A\,\mathrm{Sin}[d\,x]+90\,B\,\mathrm{Sin}[d\,x])}{315\,d}+$$

$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,(90\,A\,\mathrm{Sin}[c]+45\,B\,\mathrm{Sin}[c]+112\,A\,\mathrm{Sin}[d\,x]+126\,B\,\mathrm{Sin}[d\,x])}{630\,d}+\frac{(5\,A+6\,B)\,\mathrm{Tan}[c]}{21\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{4\,a^2\,(3\,A+4\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+$$

$$\frac{4\,a^2\,(6\,A+7\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{4\,a^2\,(3\,A+4\,B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d}+\frac{4\,a^2\,(6\,A+7\,B)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{2\,a^2\,(9\,A+7\,B)\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,d}+\frac{2\,a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{210} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{63\sqrt{2}\, A e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\frac{84\sqrt{2}\, B e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\frac{60 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{70 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{\sqrt{\text{Sec}[c+d x]}\left(42(3A+4B)\text{Cos}[d x]\,\text{Csc}[c]+\left(60A+70B+21(2A+B)\text{Sec}[c+d x]+15A\,\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2 (A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{4a^2(4A+5B)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+\frac{4a^2(A+2B)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+\frac{4a^2(4A+5B)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{5d}+\frac{2a^2(7A+5B)\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{15d}+\frac{2aA(a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5d}$$

$$\frac{1}{30} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{12\sqrt{2}\, A e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\frac{15\sqrt{2}\, B e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\frac{10 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{20 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{\sqrt{\text{Sec}[c+d x]}\left(6(4A+5B)\text{Cos}[d x]\,\text{Csc}[c]+(5(2A+B)+3A\,\text{Sec}[c+d x])\,\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2 (A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}, x, 6, 0\right\}$$

$$-\frac{4 a^2 A \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{4 a^2 (2 A+3 B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{2 a^2 (5 A+3 B)\sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{3 d}+\frac{2 a A (a+a \text{Cos}[c+d x])\ \text{Sec}[c+d x]^{3/2}\ \text{Sin}[c+d x]}{3 d}$$

$$-\frac{1}{3 d} i a^2 \text{Sec}[c+d x]^{3/2}\left(-6 A-6 A \text{Cos}[2(c+d x)]+6 A e^{-2 i (c+d x)}\left(1+e^{2 i (c+d x)}\right)^{3/2}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+2(2 A+3 B) e^{-i (c+d x)}\left(1+e^{2 i (c+d x)}\right)^{3/2}\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]+2 i A \text{Sin}[c+d x]+6 i A \text{Sin}[2(c+d x)]+3 i B \text{Sin}[2(c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x])\ \text{Sec}[c+d x]^{3/2}, x, 6, 0\right\}$$

$$\frac{4 a^2 B \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{4 a^2 (3 A+2 B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}-\frac{2 a^2 (3 A-B)\ \text{Sin}[c+d x]}{3 d\sqrt{\text{Sec}[c+d x]}}+\frac{2 a A (a+a \text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{d}$$

$$\frac{1}{3 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(-12 i B \text{Cos}[c+d x]+12 i B e^{-i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]-4 i (3 A+2 B)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2 i (c+d x)}\right]+6 A \text{Sin}[c+d x]+B \text{Sin}[2(c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}, x, 6, 0\right\}$$

$$\frac{4 a^2 (5 A+4 B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^2 (2 A+B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{2 a^2 (5 A+7 B)\ \text{Sin}[c+d x]}{15 d\sqrt{\text{Sec}[c+d x]}}+\frac{2 a B (a+a \text{Cos}[c+d x])\ \text{Sin}[c+d x]}{5 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{30 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(40(2 A+B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+24 i (5 A+4 B) e^{-i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+2 \text{Cos}[c+d x]\left(-12 i (5 A+4 B)+10(A+2 B)\ \text{Sin}[c+d x]+3 B \text{Sin}[2(c+d x)]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x])}{\sqrt{\text{Sec}[c+d x]}}, x, 7, 0\right\}$$

$$\frac{4 a^2 (4 A+3 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+$$
$$\frac{4 a^2 (7 A+6 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+$$
$$\frac{2 a^2 (7 A+9 B) \text{Sin}[c+d x]}{35 d \text{Sec}[c+d x]^{3/2}}+\frac{2 a B (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{7 d \text{Sec}[c+d x]^{3/2}}+\frac{4 a^2 (7 A+6 B) \text{Sin}[c+d x]}{21 d \sqrt{\text{Sec}[c+d x]}}$$
$$\frac{1}{420 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(80 (7 A+6 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+\right.$$
$$336 i (4 A+3 B) e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+$$
$$\left.2 \text{Cos}[c+d x] (5 (56 A+51 B) \text{Sin}[c+d x]+42 (A+2 B) \text{Sin}[2 (c+d x)]-3 i (224 A+168 B+5 i B \text{Sin}[3 (c+d x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x])}{\text{Sec}[c+d x]^{3/2}},x,8,0\right\}$$
$$\frac{4 a^2 (9 A+8 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+$$
$$\frac{4 a^2 (6 A+5 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+\frac{2 a^2 (9 A+11 B) \text{Sin}[c+d x]}{63 d \text{Sec}[c+d x]^{5/2}}+$$
$$\frac{2 a B (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{9 d \text{Sec}[c+d x]^{5/2}}+\frac{4 a^2 (9 A+8 B) \text{Sin}[c+d x]}{45 d \text{Sec}[c+d x]^{3/2}}+\frac{4 a^2 (6 A+5 B) \text{Sin}[c+d x]}{21 d \sqrt{\text{Sec}[c+d x]}}$$
$$\frac{1}{2520 d} a^2 \sqrt{\text{Sec}[c+d x]}\left(480 (6 A+5 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+\right.$$
$$672 i (9 A+8 B) e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+$$
$$2 \text{Cos}[c+d x] (-3024 i A-2688 i B+30 (51 A+46 B) \text{Sin}[c+d x]+14 (36 A+37 B) \text{Sin}[2 (c+d x)]+$$
$$\left.90 A \text{Sin}[3 (c+d x)]+180 B \text{Sin}[3 (c+d x)]+35 B \text{Sin}[4 (c+d x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 (A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{13/2},x,10,0\right\}$$
$$-\frac{4 a^3 (15 A+17 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+$$
$$\frac{4 a^3 (105 A+121 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{231 d}+$$
$$\frac{4 a^3 (15 A+17 B) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{15 d}+\frac{4 a^3 (105 A+121 B) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{231 d}+$$
$$\frac{4 a^3 (15 A+17 B) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{45 d}+\frac{20 a^3 (21 A+22 B) \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{693 d}+$$
$$\frac{2 a^2 (15 A+11 B) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{9/2} \text{Sin}[c+d x]}{99 d}+\frac{2 a A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{11/2} \text{Sin}[c+d x]}{11 d}$$

$$-\frac{1}{2\sqrt{2}\,d}A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$

$$\frac{1}{30\sqrt{2}\,d}17\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6+$$

$$\frac{5\,A\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{22\,d}+$$

$$\frac{11\,B\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$

$$(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{(15\,A+17\,B)\,\mathrm{Cos}[dx]\,\mathrm{Csc}[c]}{30\,d}+\right.$$

$$\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^5\,\mathrm{Sin}[dx]}{44\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^4\,(9\,A\,\mathrm{Sin}[c]+33\,A\,\mathrm{Sin}[dx]+11\,B\,\mathrm{Sin}[dx])}{396\,d}+$$

$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^3\,(231\,A\,\mathrm{Sin}[c]+77\,B\,\mathrm{Sin}[c]+378\,A\,\mathrm{Sin}[dx]+297\,B\,\mathrm{Sin}[dx])}{2772\,d}+$$

$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,(1155\,A\,\mathrm{Sin}[c]+1309\,B\,\mathrm{Sin}[c]+1575\,A\,\mathrm{Sin}[dx]+1815\,B\,\mathrm{Sin}[dx])}{6930\,d}+$$

$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^2\,(1890\,A\,\mathrm{Sin}[c]+1485\,B\,\mathrm{Sin}[c]+2310\,A\,\mathrm{Sin}[dx]+2618\,B\,\mathrm{Sin}[dx])}{13\,860\,d}+\frac{(105\,A+121\,B)\,\mathrm{Tan}[c]}{462\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^3\,(A+B\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{11/2},x,9,0\right\}$$

$$-\frac{4\,a^3\,(17\,A+21\,B)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{15\,d}+$$

$$\frac{4\,a^3\,(11\,A+13\,B)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{21\,d}+\frac{4\,a^3\,(17\,A+21\,B)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{15\,d}+$$

$$\frac{4\,a^3\,(11\,A+13\,B)\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{21\,d}+\frac{4\,a^3\,(23\,A+24\,B)\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{105\,d}+$$

$$\frac{2\,a^2\,(13\,A+9\,B)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{63\,d}+\frac{2\,a\,A\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{9/2}\,\mathrm{Sin}[c+dx]}{9\,d}$$

$$-\frac{1}{30\sqrt{2}\,d}17\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$

$$\frac{1}{10\sqrt{2}\,d}7\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6+$$

$$\frac{11\,A\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$

$$\frac{13\,B\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$

$$(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{(17\,A+21\,B)\,\mathrm{Cos}[dx]\,\mathrm{Csc}[c]}{30\,d}+\right.$$

$$\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^4\,\mathrm{Sin}[dx]}{36\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^3\,(7\,A\,\mathrm{Sin}[c]+27\,A\,\mathrm{Sin}[dx]+9\,B\,\mathrm{Sin}[dx])}{252\,d}+$$

$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^2\,(135\,A\,\mathrm{Sin}[c]+45\,B\,\mathrm{Sin}[c]+238\,A\,\mathrm{Sin}[dx]+189\,B\,\mathrm{Sin}[dx])}{1260\,d}+$$

$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,(238\,A\,\mathrm{Sin}[c]+189\,B\,\mathrm{Sin}[c]+330\,A\,\mathrm{Sin}[dx]+390\,B\,\mathrm{Sin}[dx])}{1260\,d}+\frac{(11\,A+13\,B)\,\mathrm{Tan}[c]}{42\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^3\,(A+B\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{4\,a^3\,(7\,A+9\,B)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{5\,d}+$$

$$\frac{4\,a^3\,(13\,A+21\,B)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{21\,d}+$$

$$\frac{4\,a^3\,(7\,A+9\,B)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{5\,d}+\frac{4\,a^3\,(41\,A+42\,B)\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{105\,d}+$$

$$\frac{2\,a^2\,(11\,A+7\,B)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{35\,d}+\frac{2\,a\,A\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{7\,d}$$

$$\frac{1}{420} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 147 \sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\right.$$

$$\text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)-$$

$$\frac{189 \sqrt{2}\, B\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}$$

$$+\frac{130 A \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{210 B \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\left.\frac{\sqrt{\text{Sec}[c+d x]}\left(42 (7 A+9 B)\text{Cos}[d x]\text{Csc}[c]+\left(5 (26 A+21 B)+21 (3 A+B)\text{Sec}[c+d x]+15 A\,\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^3 (A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{4 a^3 (9 A+5 B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+$$

$$\frac{4 a^3 (3 A+5 B)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{4 a^3 (21 A+20 B)\sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{15 d}+$$

$$\frac{2 a^2 (9 A+5 B)(a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{15 d}+\frac{2 a A (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{60} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6$$

$$\left(-\frac{27 \sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}-\right.$$

$$\frac{15 \sqrt{2}\, B\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}+$$

$$\frac{30 A \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{50 B \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{1}{2 d}\sqrt{\text{Sec}[c+d x]}$$

$$\left.(3 (36 A+25 B-5 B\,\text{Cos}[2 c])\,\text{Cos}[d x]\,\text{Csc}[c]+30 B\,\text{Cos}[c]\,\text{Sin}[d x]+2 (15 A+5 B+3 A\,\text{Sec}[c+d x])\,\text{Tan}[c+d x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2},\,x,\,7,\,0\right\}$$

$$-\frac{4\,a^3\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{20\,a^3\,(A+B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,d}-\frac{4\,a^3\,(4\,A+B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,a^2\,(7\,A+3\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{6\,d}\,a^3\,\text{Sec}[c+d\,x]^{3/2}\left(12\,i\,A-12\,i\,B+12\,i\,A\,\text{Cos}[2\,(c+d\,x)]-12\,i\,B\,\text{Cos}[2\,(c+d\,x)]+40\,(A+B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-12\,i\,(A-B)\,e^{-2\,i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)^{3/2}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+4\,A\,\text{Sin}[c+d\,x]+B\,\text{Sin}[c+d\,x]+18\,A\,\text{Sin}[2\,(c+d\,x)]+6\,B\,\text{Sin}[2\,(c+d\,x)]+B\,\text{Sin}[3\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2},\,x,\,7,\,0\right\}$$

$$\frac{4\,a^3\,(5\,A+9\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{4\,a^3\,(5\,A+3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,d}-\frac{4\,a^3\,(5\,A-6\,B)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{2\,a^2\,(5\,A-B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}$$

$$\frac{1}{30\,d}\,a^3\,\sqrt{\text{Sec}[c+d\,x]}\left(-120\,i\,A\,\text{Cos}[c+d\,x]-216\,i\,B\,\text{Cos}[c+d\,x]+40\,(5\,A+3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+24\,i\,(5\,A+9\,B)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+60\,A\,\text{Sin}[c+d\,x]+3\,B\,\text{Sin}[c+d\,x]+10\,A\,\text{Sin}[2\,(c+d\,x)]+30\,B\,\text{Sin}[2\,(c+d\,x)]+3\,B\,\text{Sin}[3\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$\frac{4\,a^3\,(9\,A+7\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{4\,a^3\,(21\,A+13\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a^3\,(42\,A+41\,B)\,\text{Sin}[c+d\,x]}{105\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,a^2\,(7\,A+11\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,a\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{420\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(80\,(21\,A+13\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+336\,i\,(9\,A+7\,B)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(5\,(84\,A+107\,B)\,\text{Sin}[c+d\,x]+3\,(-56\,i\,(9\,A+7\,B)+14\,(A+3\,B)\,\text{Sin}[2\,(c+d\,x)]+5\,B\,\text{Sin}[3\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Sec}[c+d\,x]}},x,8,0\right\}$$

$$\frac{4\,a^3\,(21\,A+17\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{4\,a^3\,(13\,A+11\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a^3\,(24\,A+23\,B)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a^2\,(9\,A+13\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(13\,A+11\,B)\,\text{Sin}[c+d\,x]}{21\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2520\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(480\,(13\,A+11\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+672\,i\,(21\,A+17\,B)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-7056\,i\,A-5712\,i\,B+30\,(107\,A+97\,B)\,\text{Sin}[c+d\,x]+14\,(54\,A+73\,B)\,\text{Sin}[2\,(c+d\,x)]+90\,A\,\text{Sin}[3\,(c+d\,x)]+270\,B\,\text{Sin}[3\,(c+d\,x)]+35\,B\,\text{Sin}[4\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,(A+B\,\text{Cos}[c+d\,x])}{\text{Sec}[c+d\,x]^{3/2}},x,9,0\right\}$$

$$\frac{4\,a^3\,(17\,A+15\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{4\,a^3\,(121\,A+105\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{231\,d}+\frac{20\,a^3\,(22\,A+21\,B)\,\text{Sin}[c+d\,x]}{693\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a^2\,(11\,A+15\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{99\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{11\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{4\,a^3\,(17\,A+15\,B)\,\text{Sin}[c+d\,x]}{45\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(121\,A+105\,B)\,\text{Sin}[c+d\,x]}{231\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{55\,440\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(960\,(121\,A+105\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+14\,784\,i\,(17\,A+15\,B)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-125\,664\,i\,A-110\,880\,i\,B+30\,(2134\,A+1953\,B)\,\text{Sin}[c+d\,x]+308\,(73\,A+75\,B)\,\text{Sin}[2\,(c+d\,x)]+5940\,A\,\text{Sin}[3\,(c+d\,x)]+8505\,B\,\text{Sin}[3\,(c+d\,x)]+770\,A\,\text{Sin}[4\,(c+d\,x)]+2310\,B\,\text{Sin}[4\,(c+d\,x)]+315\,B\,\text{Sin}[5\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}}{a+a\,\text{Cos}[c+d\,x]},x,8,0\right\}$$

$$-\frac{3\,(7\,A-5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}-$$

$$\frac{5\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+\frac{3\,(7\,A-5\,B)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{5\,a\,d}-$$

$$\frac{5\,(A-B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{(7\,A-5\,B)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}-\frac{(A-B)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}63\,\sqrt{2}\;A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{45\,\sqrt{2}\;B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{50\,A\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{50\,B\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{1}{d}\sqrt{\text{Sec}[c+d\,x]}\left(18\,(7\,A-5\,B)\,\text{Cos}[d\,x]\,\text{Csc}[c]-\right.$$

$$\left.\left.(13\,A-25\,B+4\,(2\,A-5\,B)\,\text{Cos}[c+d\,x]+25\,(A-B)\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}[c+d\,x]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$\frac{3\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(5\,A-3\,B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-\frac{3\,(A-B)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{a\,d}+$$

$$\frac{(5\,A-3\,B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{(A-B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{9\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{9\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{10\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{6\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{2\sqrt{\text{Sec}[c+d\,x]}\left(-9\,(A-B)\,\text{Cos}[d\,x]\,\text{Csc}[c]+(5\,A-3\,B+2\,A\,\text{Sec}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}}{a+a\,\text{Cos}[c+d\,x]},x,6,0\right\}$$

$$-\frac{(3\,A-B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-$$

$$\frac{(A-B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(3\,A-B)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d}-\frac{(A-B)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\left(2\,A\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(A-B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+(3\,A-B)\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{(A-B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(A+B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}-\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}+$$

$$\frac{2\,A\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{2\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}-$$

$$\left.\frac{(A-B)\,\left(\mathrm{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\mathrm{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\mathrm{Csc}[c]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{(A-3\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(A-B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{3\,\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{2\left((A-2\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]-B\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\left.\frac{2\,A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,6,\,0\right\}$$

$$\frac{3\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-$$

$$\frac{(3\,A-5\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+$$

$$\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(3\,A-5\,B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{9\,\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{9\,\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{6\,A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{10\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\left.\frac{\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((12\,A-13\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(6\,A-5\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]-2\,B\,\text{Sin}[c]\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d\,\sqrt{\text{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,(5\,A-7\,B)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}+$$

$$\frac{5\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+$$

$$\frac{(A-B)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}-\frac{(5\,A-7\,B)\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{5\,(A-B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}45\,\sqrt{2}\ A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{63\,\sqrt{2}\ B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{50\,A\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{50\,B\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{1}{d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((65\,A-83\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(25\,A-43\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$\left.\left.2\,(5\,A-2\,B+2\,(5\,A-2\,B)\,\text{Cos}[c+d\,x]+3\,B\,\text{Cos}[2\,(c+d\,x)])\,\text{Sin}[c]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 8,\ 0\right\}$$

$$\frac{(7\,A-4\,B)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{5\,(2\,A-B)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(7\,A-4\,B)\,\sqrt{\text{Sec}[c+d\,x]}\ \text{Sin}[c+d\,x]}{a^2\,d}+$$

$$\frac{5\,(2\,A-B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(A-B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(7\,A-4\,B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$
$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$
$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$
$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$
$$\frac{40\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-$$
$$\frac{20\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$
$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{2\,(7\,A-4\,B)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\right.$$
$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(3\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+$$
$$\left.\frac{8\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,(2\,A+10\,A\,\mathrm{Cos}[c]-5\,B\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},x,7,0\right\}$$
$$-\frac{(4\,A-B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}-$$
$$\frac{(5\,A-2\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}+\frac{(4\,A-B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a^2\,d}-$$
$$\frac{(A-B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(5\,A-2\,B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$
$$-\frac{1}{6\,a^2\,d\,(1+\mathrm{Cos}[c+d\,x])^2}$$
$$e^{-i\,(2\,c+d\,x)}\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}\left(-29\,i\,A+5\,i\,B-50\,i\,A\,\mathrm{Cos}[c+d\,x]+14\,i\,B\,\mathrm{Cos}[c+d\,x]-17\,i\,A\,\mathrm{Cos}[2\,(c+d\,x)]+\right.$$
$$5\,i\,B\,\mathrm{Cos}[2\,(c+d\,x)]+3\,i\,(4\,A-B)\,e^{-2\,i\,(c+d\,x)}\left(1+e^{i\,(c+d\,x)}\right)^3\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+$$
$$8\,(5\,A-2\,B)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+i\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)-$$
$$\left.12\,A\,\mathrm{Sin}[c+d\,x]-7\,A\,\mathrm{Sin}[2\,(c+d\,x)]+B\,\mathrm{Sin}[2\,(c+d\,x)]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(3\,c+d\,x)\right]+i\,\mathrm{Sin}\left[\frac{1}{2}(3\,c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$\frac{A\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+\frac{(2\,A+B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}-$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{A\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}4\,i\,\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \left(3\,A\,\left(1+e^{2\,i\,(c+d\,x)}\right)+3\,A\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]-(2\,A+B)\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)-\frac{\left((7\,A-B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(2\,A+B)\,\mathrm{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+3\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$-\frac{B\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+\frac{(A+2\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}+$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{B\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(-\frac{1}{d\,\left(-1+e^{2\,i\,c}\right)}4\,i\,\sqrt{2}\ e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \left(3\,B\,\left(1+e^{2\,i\,(c+d\,x)}\right)+3\,B\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+(A+2\,B)\,e^{i\,(c+d\,x)}\,\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+\frac{\left((A+5\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]-(A-4\,B)\,\mathrm{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+3\,B\,\mathrm{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(A-4\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{(2\,A-5\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}+$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(2\,A-5\,B)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$

$$\left(-\frac{6\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+\right.$$

$$\frac{24\sqrt{2}\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$+\frac{1}{d\sqrt{\text{Sec}[c+dx]}}\left(5(A-4B)\text{Cos}\left[\frac{1}{2}(c-dx)\right]+4(A-4B)\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+\right.$$

$$\left.3A\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-9B\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-3B\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3+$$

$$\left.\frac{8A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}-\frac{20B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]}{(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}},x,7,0\right\}$$

$$\frac{(4A-7B)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2d}-$$

$$\frac{5(A-2B)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}+$$

$$\frac{(A-B)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}}+\frac{(4A-7B)\,\text{Sin}[c+dx]}{3ad(a+a\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{3/2}}-\frac{5(A-2B)\,\text{Sin}[c+dx]}{3a^2d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$

$$\left(\frac{24\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$

$$\frac{42\sqrt{2}\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$-\frac{1}{2d\sqrt{\text{Sec}[c+dx]}}\left(8(5A-9B)\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(32A-54B)\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+18A\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-\right.$$

$$\left.33B\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+6A\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]-9B\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]-B\,\text{Cos}\left[\frac{1}{2}(3c+5dx)\right]+B\,\text{Cos}\left[\frac{1}{2}(7c+5dx)\right]\right)$$

$$\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3-\frac{20A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$

$$\left.\frac{40B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{5/2}}{(a+a\,\text{Cos}[c+dx])^3},x,9,0\right\}$$

$$\frac{7(17A-7B)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{10a^3d}+$$

$$\frac{(33A-13B)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{6a^3d}-\frac{7(17A-7B)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{10a^3d}+$$

$$\frac{(33A-13B)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{6a^3d}-\frac{(A-B)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{5d(a+a\,\text{Cos}[c+dx])^3}-$$

$$\frac{(2A-B)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3ad(a+a\,\text{Cos}[c+dx])^2}-\frac{7(17A-7B)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{30a^2d(a+a\,\text{Cos}[c+dx])}$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{44\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{52\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{14\,(17\,A-7\,B)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(197\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-87\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\right.$$

$$\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(26\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-11\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(13\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-8\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\left.\frac{4\,(4\,A+33\,A\,\mathrm{Cos}[c]-13\,B\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+\frac{4\,(13\,A-8\,B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},x,8,0\right\}$$

$$-\frac{(49\,A-9\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}-$$

$$\frac{(13\,A-3\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(49\,A-9\,B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d}-$$

$$\frac{(A-B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(8\,A-3\,B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-3\,B)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 294 \sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\right.$$

$$\text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)+$$

$$\frac{54 \sqrt{2}\, B\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)}{d}$$

$$-\frac{260 A \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{60 B \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{1}{8 d} \left(12 (107 A-17 B) \text{Cos}\left[\frac{1}{2}(c-d x)\right]+3 (307 A-67 B) \text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+1243 A \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]-\right.$$

$$213 B \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+374 A \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]-84 B \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+670 A \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-$$

$$120 B \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+65 A \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]-15 B \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+$$

$$\left.\left.147 A \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-27 B \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]\right) \text{Csc}[c]\, \text{Sec}\left[\frac{1}{2}(c+d x)\right]^5 \sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}{(a+a \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$\frac{(9 A+B) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+$$

$$\frac{(3 A+B) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{6 a^3 d}-\frac{(A-B) \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{(6 A-B) \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}-\frac{(9 A+B) \text{Sin}[c+d x]}{10 a^2 d (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(\frac{54\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{6\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{1}{8\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left(2\,(93\,A+2\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(84\,A+26\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$120\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+10\,B\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+15\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+5\,B\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+$$

$$\left.27\,A\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]+3\,B\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\frac{60\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{20\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(A-B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(A+B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{(A+4\,B)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{\text{Sec}[c+d\,x]}}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(\frac{6\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{6\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{1}{8\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left(2\,(2\,A-7\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+2\,(13\,A-8\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$10\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]-20\,B\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+5\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+5\,B\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+$$

$$\left.3\,A\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]-3\,B\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\frac{20\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{20\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{(A+9\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(A+3\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{(A-6\,B)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{\text{Sec}[c+d\,x]}}+\frac{(A+9\,B)\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(-\frac{6\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{54\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{1}{8\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left(2\,(7\,A+78\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+2\,(8\,A+57\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$20\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+90\,B\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]-5\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+45\,B\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+$$

$$\left.3\,A\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]+27\,B\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\frac{20\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{60\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{(9\,A-49\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(3\,A-13\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(3\,A-8\,B)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A-13\,B)\,\text{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d}54\sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\right.\right.$$

$$\left.\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)+\frac{1}{d}294\sqrt{2}\, B\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c]$$

$$\left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)+\frac{1}{4 d\sqrt{\text{Sec}[c+d x]}}$$

$$\left(26(6A-31B)\text{Cos}\left[\frac{1}{2}(c-d x)\right]+2(57A-332B)\text{Cos}\left[\frac{1}{2}(3c+d x)\right]+90 A\,\text{Cos}\left[\frac{1}{2}(c+3d x)\right]-470 B\,\text{Cos}\left[\frac{1}{2}(c+3d x)\right]+\right.$$

$$45 A\,\text{Cos}\left[\frac{1}{2}(5c+3d x)\right]-265 B\,\text{Cos}\left[\frac{1}{2}(5c+3d x)\right]+27 A\,\text{Cos}\left[\frac{1}{2}(3c+5d x)\right]-117 B\,\text{Cos}\left[\frac{1}{2}(3c+5d x)\right]-$$

$$\left.30 B\,\text{Cos}\left[\frac{1}{2}(7c+5d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5+\frac{60 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}-$$

$$\left.\frac{260 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}},x,8,0\right\}$$

$$\frac{7(7A-17B)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}-$$

$$\frac{(13A-33B)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{6 a^3 d}+\frac{(A-B)\,\text{Sin}[c+d x]}{5 d\,(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}}+$$

$$\frac{(A-2B)\,\text{Sin}[c+d x]}{3 a d\,(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}}+\frac{7(7A-17B)\,\text{Sin}[c+d x]}{30 a^2 d\,(a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}}-\frac{(13A-33B)\,\text{Sin}[c+d x]}{6 a^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(\frac{294\,\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}\right.$$

$$-\frac{1}{d}714\,\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left((806\,A-1961\,B)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(664\,A-1609\,B)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+470\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]-\right.$$

$$1165\,B\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+265\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]-620\,B\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+117\,A\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]-$$

$$292\,B\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]+30\,A\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]-65\,B\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]-5\,B\,\text{Cos}\left[\frac{1}{2}\,(5\,c+7\,d\,x)\right]+$$

$$\left.5\,B\,\text{Cos}\left[\frac{1}{2}\,(9\,c+7\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5-\frac{260\,A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{660\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{9/2}},\,x,\,9,\,0\right\}$$

$$-\frac{7\,(17\,A-33\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(11\,A-21\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{2\,a^3\,d}+$$

$$\frac{(A-B)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{9/2}}+\frac{(7\,A-12\,B)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{7/2}}+$$

$$\frac{3\,(11\,A-21\,B)\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}-\frac{7\,(17\,A-33\,B)\,\text{Sin}[c+d\,x]}{30\,a^3\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(11\,A-21\,B)\,\text{Sin}[c+d\,x]}{2\,a^3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 238 \sqrt{2} A e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right) + \frac{1}{d} 462 \sqrt{2} B e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right) + \frac{1}{24 d \sqrt{\text{Sec}[c+d x]}} \left((3922 A-7590 B) \text{Cos}\left[\frac{1}{2}(c-d x)\right] + (3218 A-6270 B) \text{Cos}\left[\frac{1}{2}(3 c+d x)\right] + 2330 A \text{Cos}\left[\frac{1}{2}(c+3 d x)\right] - 4500 B \text{Cos}\left[\frac{1}{2}(c+3 d x)\right] + 1240 A \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right] - 2430 B \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right] + 584 A \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right] - 1110 B \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right] + 130 A \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right] - 276 B \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right] + 10 A \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right] - 15 B \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right] - 10 A \text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right] + 15 B \text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right] + 3 B \text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right] - 3 B \text{Cos}\left[\frac{1}{2}(11 c+9 d x)\right]\right) \text{Csc}[c] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^5 + \frac{220 A \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} - \frac{420 B \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a \text{Cos}[c+d x]} (A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2}, x, 3, 0\right\}$$

$$\frac{2 \sqrt{a} B \text{ArcTan}\left[\frac{\sqrt{a} \text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]} \sqrt{a+a \text{Cos}[c+d x]}}\right] \sqrt{\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}{d} + \frac{2 a A \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{d \sqrt{a+a \text{Cos}[c+d x]}} \frac{1}{d \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}} \sqrt{a (1+\text{Cos}[c+d x])} \text{Sec}\left[\frac{1}{2}(c+d x)\right] \sqrt{\text{Sec}[c+d x]} \left(\text{Cos}\left[\frac{d x}{2}\right]+i \text{Sin}\left[\frac{d x}{2}\right]\right) \left(i B \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i \text{Sin}\left[\frac{c}{2}\right]\right) \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right] \text{Cos}[c+d x] - i B \text{Cos}[c+d x] \text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right] + 2 \sqrt{2} A \left(\text{Cos}\left[\frac{d x}{2}\right]-i \text{Sin}\left[\frac{d x}{2}\right]\right) \sqrt{\text{Cos}[c+d x] (\text{Cos}[d x]+i \text{Sin}[d x])} \text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+a \text{Cos}[c+d x]} (A+B \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}, x, 3, 0\right\}$$

$$\frac{\sqrt{a} (2 A+B) \text{ArcTan}\left[\frac{\sqrt{a} \text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]} \sqrt{a+a \text{Cos}[c+d x]}}\right] \sqrt{\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}{d} + \frac{a B \text{Sin}[c+d x]}{d \sqrt{a+a \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{2\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-i\,(2A+B)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\,(2A+B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$2A\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$B\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$\left.2\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d x]}\,(A+B\,\text{Cos}[c+d x])}{\sqrt{\text{Sec}[c+d x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{\sqrt{a}\,(4A+3B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{4d}+$$
$$\frac{a\,B\,\text{Sin}[c+d x]}{2d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}}+\frac{a\,(4A+3B)\,\text{Sin}[c+d x]}{4d\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{8\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-i\,(4A+3B)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\,(4A+3B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$4A\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$3B\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$8\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+4\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]+2\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d x]}\,(A+B\,\text{Cos}[c+d x])}{\text{Sec}[c+d x]^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{\sqrt{a}\,(6A+5B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{8d}+$$
$$\frac{a\,B\,\text{Sin}[c+d x]}{3d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{5/2}}+\frac{a\,(6A+5B)\,\text{Sin}[c+d x]}{12d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}}+\frac{a\,(6A+5B)\,\text{Sin}[c+d x]}{8d\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{48\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\,\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-3 i\,(6 A+5 B)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3 i\,(6 A+5 B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$18 A\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$15 B\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$24\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+28\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{1}{2}(c+d x)\right]+12\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+6\sqrt{2}\,B$$
$$\left.\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+4\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\,(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2},\ x,\ 4,\ 0\right\}$$

$$\frac{2 a^{3/2} B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{d}+$$
$$\frac{2 a^2\,(4 A+3 B)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{3 d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{2 a A\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 d}$$
$$\frac{1}{12 d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}}\left(a\,(1+\text{Cos}[c+d x])\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3$$
$$\sqrt{\text{Sec}[c+d x]}\left(3 B\,e^{-\frac{1}{2} i d x}\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\right.$$
$$\text{Cos}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\text{Cos}[c]-\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)+3 B\,e^{-\frac{1}{2} i d x}\,\text{ArcTanh}\Big[$$
$$\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\Big]\,\text{Sin}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\text{Cos}[c]-\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)-$$
$$3 i B\,e^{-\frac{1}{2} i d x}\,\text{Cos}\left[\frac{c}{2}\right]^2\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]$$
$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)-$$
$$3 i B\,e^{-\frac{1}{2} i d x}\,\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{c}{2}\right]^2$$
$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)+20 A\,\text{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{d x}{2}\right]+$$
$$12 B\,\text{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{d x}{2}\right]+20\sqrt{2}\,A\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]$$
$$\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}+12\sqrt{2}\,B\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}+$$
$$\left.4\sqrt{2}\,A\,\text{Sec}[c+d x]\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\,(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{a^{3/2}\,(2A+3B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{d}-$$

$$\frac{a^2\,(2A-B)\,\text{Sin}[c+dx]}{d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}+\frac{2\,a\,A\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{d}$$

$$\frac{1}{4\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}\,a\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}\,(c+dx)\right]\sqrt{\text{Sec}[c+dx]}$$

$$\Bigg(-i\,(2A+3B)\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]-$$

$$2\,i\,A\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]-$$

$$3\,i\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+2\,i\,(2A+3B)$$

$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\text{Cos}[c+dx]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$2\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$3\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$8\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]-2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]+2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}\,(c+dx)\right]+$$

$$2\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$3\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+dx])^{3/2}\,(A+B\,\text{Cos}[c+dx])\,\sqrt{\text{Sec}[c+dx]},\ x,\ 4,\ 0\right\}$$

$$\frac{a^{3/2}\,(12A+7B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{4\,d}+$$

$$\frac{a^2\,(4A+5B)\,\text{Sin}[c+dx]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}+\frac{a\,B\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2\,d\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{8\,\sqrt{2}\,d\,\sqrt{\text{Sec}[c+dx]}\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\,a\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}\,(c+dx)\right]$$

$$\Bigg(-i\,(12A+7B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$

$$i\,(12A+7B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$12\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$7\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$8\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]+12\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]+2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}\,(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{a^{3/2}\,(14\,A+11\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{8\,d}+$$

$$\frac{a^2\,(6\,A+7\,B)\,\mathrm{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a\,B\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(14\,A+11\,B)\,\mathrm{Sin}[c+d\,x]}{8\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{48\,\sqrt{2}\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-3\,i\,(14\,A+11\,B)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+$$

$$3\,i\,(14\,A+11\,B)\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$42\,A\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$33\,B\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$72\,\sqrt{2}\,A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+52\,\sqrt{2}\,B\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+18\,\sqrt{2}\,B$$

$$\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\,\sqrt{2}\,B\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{3/2}\,(88\,A+75\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{64\,d}+\frac{a^2\,(8\,A+9\,B)\,\mathrm{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{a\,B\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{a^2\,(88\,A+75\,B)\,\mathrm{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(88\,A+75\,B)\,\mathrm{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,(88\,A+75\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(88\,A+75\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$264\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$225\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$416\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$
$$384\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+144\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+126\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$32\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+48\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\sqrt{2}\,B\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,a^{5/2}\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a^3\,(32\,A+35\,B)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{2\,a^2\,(8\,A+5\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{120\,d\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}}\left(a\left(1+\mathrm{Cos}[c+d x]\right)\right)^{5/2}\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^5$$

$$\sqrt{\mathrm{Sec}[c+d x]}\left(15 B e^{-\frac{1}{2} i d x}\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right]\right.$$

$$\mathrm{Cos}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]-\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)+15 B e^{-\frac{1}{2} i d x}\mathrm{ArcTanh}\Big[$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\Big]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]-\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)-$$

$$15 i B e^{-\frac{1}{2} i d x}\mathrm{Cos}\left[\frac{c}{2}\right]^2\mathrm{Log}\left[2\left(e^{i d x}\mathrm{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right)\right]$$

$$\left(\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)-$$

$$15 i B e^{-\frac{1}{2} i d x}\mathrm{Log}\left[2\left(e^{i d x}\mathrm{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)+172 A\,\mathrm{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d x}{2}\right]+$$

$$160 B\,\mathrm{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d x}{2}\right]+$$

$$172\sqrt{2}\,A\,\mathrm{Cos}\left[\frac{d x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}+$$

$$160\sqrt{2}\,B\,\mathrm{Cos}\left[\frac{d x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}+$$

$$56\sqrt{2}\,A\,\mathrm{Sec}[c+d x]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$20\sqrt{2}\,B\,\mathrm{Sec}[c+d x]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.12\sqrt{2}\,A\,\mathrm{Sec}[c+d x]^2\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d x])^{5/2}(A+B\,\mathrm{Cos}[c+d x])\,\mathrm{Sec}[c+d x]^{3/2},\ x,\ 5,\ 0\right\}$$

$$\frac{a^{5/2}(20A+19B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d x]}{\sqrt{\mathrm{Cos}[c+d x]}\sqrt{a+a\,\mathrm{Cos}[c+d x]}}\right]\sqrt{\mathrm{Cos}[c+d x]}\sqrt{\mathrm{Sec}[c+d x]}}{4d}-\frac{a^3(4A-9B)\,\mathrm{Sin}[c+d x]}{4d\sqrt{a+a\,\mathrm{Cos}[c+d x]}\sqrt{\mathrm{Sec}[c+d x]}}-$$

$$\frac{a^2(4A-B)\sqrt{a+a\,\mathrm{Cos}[c+d x]}\,\mathrm{Sin}[c+d x]}{2d\sqrt{\mathrm{Sec}[c+d x]}}+\frac{2aA(a+a\,\mathrm{Cos}[c+d x])^{3/2}\sqrt{\mathrm{Sec}[c+d x]}\,\mathrm{Sin}[c+d x]}{d}$$

$$\frac{1}{16\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,a^2\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\Bigg(-i\,(20\,A+19\,B)\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-$$

$$20\,i\,A\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-$$

$$19\,i\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+2\,i\,(20\,A+19\,B)$$

$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$20\,A\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$19\,B\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$24\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$18\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$8\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+20\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+$$

$$20\,A\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$19\,B\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{a^{5/2}\,(38\,A+25\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{8\,d}+\frac{a^3\,(54\,A+49\,B)\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{a^2\,(2\,A+3\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{a\,B\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{48\,\sqrt{2}\,d\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-3\,i\,(38\,A+25\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$

$$3\,i\,(38\,A+25\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$114\,A\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$75\,B\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$120\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+124\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+30\,\sqrt{2}\,B$$

$$\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}\,(200\,A+163\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,d}+\frac{a^3\,(104\,A+95\,B)\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{a^2\,(8\,A+11\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a\,B\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^3\,(200\,A+163\,B)\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{384\,\sqrt{2}\,d\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-3\,i\,(200\,A+163\,B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$

$$3\,i\,(200\,A+163\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$600\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$489\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$992\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$800\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+240\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+270\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$32\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+80\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,B\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{a^{5/2}\,(326\,A+283\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{128\,d}+$$

$$\frac{a^3\,(170\,A+157\,B)\,\text{Sin}[c+d\,x]}{240\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{a^2\,(10\,A+13\,B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{40\,d\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{a\,B\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{a^3\,(326\,A+283\,B)\,\text{Sin}[c+d\,x]}{192\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^3\,(326\,A+283\,B)\,\text{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3840\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\,\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\Bigg(-15\,i\,(326\,A+283\,B)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+$$
$$15\,i\,(326\,A+283\,B)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$4890\,A\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$4245\,B\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$8000\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+7168\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{1}{2}(c+d x)\right]+2700\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+$$
$$2550\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+800\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{5}{2}(c+d x)\right]+976\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+$$
$$120\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]+300\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{7}{2}(c+d x)\right]+48\sqrt{2}\,B\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{9}{2}(c+d x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{(2\,A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{\sqrt{a}\,d}-$$
$$\frac{\sqrt{2}\,(A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{\sqrt{a}\,d}+\frac{B\,\text{Sin}[c+d x]}{d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{4\,d\sqrt{a\,(1+\text{Cos}[c+d x])}}\,e^{-2 i (c+d x)}\left(1+e^{i (c+d x)}\right)$$
$$\Bigg(i\,B-i\,B\,e^{i (c+d x)}+i\,B\,e^{2 i (c+d x)}-i\,B\,e^{3 i (c+d x)}+2\,A\,d\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,x-B\,d\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,x-$$
$$i\,(2\,A-B)\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{ArcSinh}\left[e^{i (c+d x)}\right]+2\,i\sqrt{2}\,(A-B)\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[\sqrt{2}\left(1+e^{i (c+d x)}\right)\right]+$$
$$2\,i\,A\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2 i (c+d x)}}\right)\right]-i\,B\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2 i (c+d x)}}\right)\right]-$$
$$2\,i\sqrt{2}\,A\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[-d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]+$$
$$i\sqrt{2}\,B\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[-d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]+$$
$$i\sqrt{2}\,B\,e^{i (c+d x)}\sqrt{1+e^{2 i (c+d x)}}\,\text{Log}\left[2\,d\left(1-e^{i (c+d x)}+\sqrt{2}\sqrt{1+e^{2 i (c+d x)}}\right)\right]\Bigg)\sqrt{\text{Sec}[c+d x]}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(4A-7B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{4\sqrt{a}\,d}+$$

$$\frac{\sqrt{2}\,(A-B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{\sqrt{a}\,d}+$$

$$\frac{B\,\text{Sin}[c+dx]}{2d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{(4A-B)\,\text{Sin}[c+dx]}{4d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{16d\sqrt{a\,(1+\text{Cos}[c+dx])}}$$

$$e^{-3i(c+dx)}\left(1+e^{i(c+dx)}\right)\Big(i\,B+4\,i\,A\,e^{i(c+dx)}-2\,i\,B\,e^{i(c+dx)}-4\,i\,A\,e^{2i(c+dx)}+3\,i\,B\,e^{2i(c+dx)}+4\,i\,A\,e^{3i(c+dx)}-3\,i\,B\,e^{3i(c+dx)}-$$
$$4\,i\,A\,e^{4i(c+dx)}+2\,i\,B\,e^{4i(c+dx)}-i\,B\,e^{5i(c+dx)}-4\,A\,d\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x+7\,B\,d\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x+$$
$$i\,(4A-7B)\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{ArcSinh}\left[e^{i(c+dx)}\right]-8\,i\sqrt{2}\,(A-B)\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]-$$
$$4\,i\,A\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+7\,i\,B\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+$$
$$4\,i\sqrt{2}\,A\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$7\,i\sqrt{2}\,B\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]+$$
$$4\,i\sqrt{2}\,A\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$i\sqrt{2}\,B\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\Big)\sqrt{\text{Sec}[c+dx]}$$

Incorrect antiderivative:

$$\left\{\frac{\left(a\,A+(A\,b+a\,B)\,\text{Cos}[c+dx]+b\,B\,\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}}{\sqrt{a+a\,\text{Cos}[c+dx]}},\ x,\ 5,\ 0\right\}$$

$$\frac{(2\,A\,b+2\,a\,B-b\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{\sqrt{a}\,d}+$$

$$\frac{\sqrt{2}\,(a\,A-A\,b-a\,B+b\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{\sqrt{a}\,d}+$$

$$\frac{b\,B\,\text{Sin}[c+dx]}{d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{4\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,e^{-2\,i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)$$

$$\Big(i\,b\,B-i\,b\,B\,e^{i\,(c+d\,x)}+i\,b\,B\,e^{2\,i\,(c+d\,x)}-i\,b\,B\,e^{3\,i\,(c+d\,x)}+2\,A\,b\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+2\,a\,B\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-$$
$$b\,B\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-i\,(2\,A\,b+2\,a\,B-b\,B)\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-2\,i\,\sqrt{2}\,(a-b)\,(A-B)$$
$$e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,A\,b\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$2\,i\,a\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$2\,i\,\sqrt{2}\,A\,b\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$2\,i\,\sqrt{2}\,a\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$i\,\sqrt{2}\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$2\,i\,\sqrt{2}\,a\,A\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$i\,\sqrt{2}\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Big)\,\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,4,\,0\right\}$$

$$-\frac{(7\,A-3\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-$$
$$\frac{(A-B)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A-B)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$
$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$
$$\left(\frac{i\,(7\,A-3\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$
$$\left.\frac{(4\,A+(5\,A-B)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,3,\,0\right\}$$

$$\frac{(3\,A+B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-\frac{i\,(3\,A+B)\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\frac{(A-B)\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{2\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(2\,A-3\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{3/2}\,d}-\frac{(5\,A-9\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(A-3\,B)\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\left(2\,\sqrt{2}\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,\sqrt{2}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}3\,\sqrt{2}\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,\sqrt{2}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}-\frac{3\,i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\right)+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{2\,A\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{c}{2}\right]-B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{d}+\frac{2\,B\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}-\frac{2\,A\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{2\,B\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{(19\,A+5\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{(9\,A-B)\,\mathrm{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(-\frac{i\,(19\,A+5\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\mathrm{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\left.\frac{(13\,A-5\,B+(9\,A-B)\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{4\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{(5\,A+3\,B)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B)\,\mathrm{Sin}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(5\,A+3\,B)\,\mathrm{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}}\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(-\frac{i\,(5\,A+3\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\mathrm{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\left.\frac{(5\,A+3\,B+(A+7\,B)\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{4\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{5/2}\,d}+$$

$$\frac{(3\,A-43\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}+$$

$$\frac{(A-B)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A-11\,B)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d}\,\sqrt{2}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(32\,B\,d\,x-32\,i\,B\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\right.\right.$$

$$\sqrt{2}\,(3\,A-43\,B)\,\text{Log}\left[\sqrt{2}\,(3\,A-43\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,B\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$3\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Bigg)+$$

$$\left.\frac{(3\,A-11\,B+(7\,A-15\,B)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{2\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$\frac{(2\,A-5\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{5/2}\,d}-$$

$$\frac{(43\,A-115\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(7\,A-15\,B)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(11\,A-35\,B)\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$4\sqrt{2}\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$10\sqrt{2}\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{11\,i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$-$$

$$\frac{35\,i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\sqrt{\text{Sec}[c+d\,x]}\left(\frac{15\,(-A+B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{2\,d}+\frac{4\,B\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}-\frac{15\,(A-B)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+\right.$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-27\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{4\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-A\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{2\,d}+$$

$$\left.\frac{4\,B\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}+\frac{(19\,A-27\,B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{7/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(63\,A+13\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\sqrt{2}\,a^{7/2}\,d}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}\sqrt{\text{Sec}[c+d\,x]}}-$$

$$\frac{(5\,A-B)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\sqrt{\text{Sec}[c+d\,x]}}-\frac{(103\,A+5\,B)\,\text{Sin}[c+d\,x]}{192\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7$$

$$\left(-\frac{i\,(63\,A+13\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\frac{1}{48\,d}\,(493\,A-73\,B+(532\,A-4\,B)\,\text{Cos}[c+d\,x]+(103\,A+5\,B)\,\text{Cos}[2\,(c+d\,x)])$$

$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{(13\,A+7\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,\sqrt{2}\,a^{7/2}\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{(A+3\,B)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{(5\,A-17\,B)\,\text{Sin}[c+d\,x]}{192\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7$$

$$\left(-\frac{i\,(13\,A+7\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}-\right.$$

$$\frac{1}{48\,d}\,(73\,A+59\,B+4\,(A+35\,B)\,\text{Cos}[c+d\,x]+(-5\,A+17\,B)\,\text{Cos}[2\,(c+d\,x)])$$

$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(7\,A+5\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,\sqrt{2}\,a^{7/2}\,d}-\frac{(A-B)\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(7\,A+5\,B)\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(7\,A+5\,B)\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7$$

$$\left(-\frac{i\,(7\,A+5\,B)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\frac{1}{48\,d}\,(59\,A+97\,B+20\,(7\,A+5\,B)\,\text{Cos}[c+d\,x]+(17\,A+67\,B)\,\text{Cos}[2\,(c+d\,x)])$$

$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\,\sqrt{\text{Sec}[c+d\,x]}\,\left(-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\text{Sec}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$\frac{2\,B\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{7/2}\,d}+$$

$$\frac{(5\,A-177\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,\sqrt{2}\,a^{7/2}\,d}+\frac{(A-B)\,\text{Sin}[c+d\,x]}{6\,d\,(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(5\,A-17\,B)\,\text{Sin}[c+d\,x]}{48\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(5\,A-49\,B)\,\text{Sin}[c+d\,x]}{64\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{16\,(a\,(1+\text{Cos}[c+d\,x]))^{7/2}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\frac{1}{d}\,\sqrt{2}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(128\,B\,d\,x-128\,i\,B\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-\right.\right.$$

$$i\,\sqrt{2}\,(5\,A-177\,B)\,\text{Log}\left[\sqrt{2}\,(5\,A-177\,B)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+128\,i\,B\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$\left.5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-177\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{1}{24\,d}\,(97\,A-541\,B+4\,(25\,A-181\,B)\,\text{Cos}[c+d\,x]+(67\,A-247\,B)\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left.\sqrt{\text{Sec}[c+d\,x]}\,\left(-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{7/2}\,\text{Sec}[c+d\,x]^{7/2}},\,x,\,8,\,0\right\}$$

$$\frac{(2A-7B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{a^{7/2}\,d}-$$

$$\frac{(177A-637B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{64\sqrt{2}\,a^{7/2}\,d}+$$

$$\frac{(A-B)\,\text{Sin}[c+dx]}{6\,d\,(a+a\,\text{Cos}[c+dx])^{7/2}\,\text{Sec}[c+dx]^{7/2}}+\frac{(3A-7B)\,\text{Sin}[c+dx]}{16\,a\,d\,(a+a\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{5/2}}+$$

$$\frac{(79A-259B)\,\text{Sin}[c+dx]}{192\,a^2\,d\,(a+a\,\text{Cos}[c+dx])^{3/2}\,\text{Sec}[c+dx]^{3/2}}-\frac{7\,(7A-27B)\,\text{Sin}[c+dx]}{64\,a^3\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+dx]))^{7/2}}$$

$$8\sqrt{2}\,A\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(dx-i\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)-\frac{1}{d\,(a\,(1+\text{Cos}[c+dx]))^{7/2}}$$

$$28\sqrt{2}\,B\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(dx-i\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)+$$

$$\frac{49\,i\,A\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{8\,d\,(a\,(1+\text{Cos}[c+dx]))^{7/2}}$$

$$-\frac{1}{8\,d\,(a\,(1+\text{Cos}[c+dx]))^{7/2}}189\,i\,B\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7$$

$$\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)+\frac{1}{(a\,(1+\text{Cos}[c+dx]))^{7/2}}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^7\sqrt{\text{Sec}[c+dx]}\left(\frac{(-247A+427B)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{12\,d}+\frac{8\,B\,\text{Cos}\left[\frac{3dx}{2}\right]\text{Sin}\left[\frac{3c}{2}\right]}{d}-\frac{(247A-427B)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{dx}{2}\right]}{12\,d}+\right.$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(379\,A\,\text{Sin}\left[\frac{dx}{2}\right]-703\,B\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{24\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\left(A\,\text{Sin}\left[\frac{dx}{2}\right]-B\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{3\,d}+$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\left(-41\,A\,\text{Sin}\left[\frac{dx}{2}\right]+53\,B\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{12\,d}+\frac{8\,B\,\text{Cos}\left[\frac{3c}{2}\right]\text{Sin}\left[\frac{3dx}{2}\right]}{d}+$$

$$\left.\frac{(379A-703B)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Tan}\left[\frac{c}{2}\right]}{24\,d}-\frac{(41A-53B)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Tan}\left[\frac{c}{2}\right]}{12\,d}+\frac{(A-B)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx],\ x,\ 2,\ 0\right\}$$

$$\frac{A\,\text{ArcTanh}[\text{Sin}[c+dx]]}{d}+\frac{C\,\text{Sin}[c+dx]}{d}$$

$$\frac{A\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\right)+C\,\text{Sin}[c+dx]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])\,(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\}$$

$$a\,C\,x+\frac{a\,(A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{a\,A\,\mathrm{Tan}[c+d\,x]}{2\,d}+\frac{A\,(a+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4}\,a\left(4\,C\,x-\frac{2\,(A+2\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\right.$$

$$\frac{2\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+$$

$$\left.\frac{A}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A}{d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,A\,\mathrm{Tan}[c+d\,x]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])\,(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{a\,(3\,A+4\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{a\,(2\,A+3\,C)\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a\,(3\,A+4\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+$$

$$\frac{a\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\,a\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}-\frac{a\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{3\,a\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}+\frac{a\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{3\,a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{a\,C}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}-$$

$$\frac{3\,a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{a\,C}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{2\,a\,A\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a\,C\,\mathrm{Tan}[c+d\,x]}{d}+\frac{a\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^2\,(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\}$$

$$2\,a^2\,C\,x+\frac{a^2\,(3\,A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}-\frac{a^2\,(3\,A-2\,C)\,\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{16} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(8 C x - \frac{2(3A+2C)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{2(3A+2C)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{4 C \text{Cos}[d x]\text{Sin}[c]}{d} + \frac{4 C \text{Cos}[c]\text{Sin}[d x]}{d} + \frac{A}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{8 A \text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} - \frac{A}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{8 A \text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])^2\left(A+C\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^4, x, 5, 0\right\}$$

$$a^2 C x + \frac{a^2(A+2C)\text{ArcTanh}[\text{Sin}[c+d x]]}{d} + \frac{a^2(A+C)\text{Tan}[c+d x]}{d} + \frac{a A (a+a\text{Sec}[c+d x])\text{Tan}[c+d x]}{3d} + \frac{A(a+a\text{Sec}[c+d x])^2\text{Tan}[c+d x]}{3d}$$

$$\frac{1}{4} C x (a+a\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 + \frac{(-A-2C)(a+a\text{Cos}[c+d x])^2\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4}{4d} + \frac{(A+2C)(a+a\text{Cos}[c+d x])^2\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4}{4d} + \frac{A(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\text{Sin}\left[\frac{d x}{2}\right]}{24d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^3} + \frac{(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\left(7A\text{Cos}\left[\frac{c}{2}\right]-5A\text{Sin}\left[\frac{c}{2}\right]\right)}{48d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^2} + \frac{(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\left(5A\text{Sin}\left[\frac{d x}{2}\right]+3C\text{Sin}\left[\frac{d x}{2}\right]\right)}{12d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)} + \frac{A(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\text{Sin}\left[\frac{d x}{2}\right]}{24d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^3} + \frac{(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\left(-7A\text{Cos}\left[\frac{c}{2}\right]-5A\text{Sin}\left[\frac{c}{2}\right]\right)}{48d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^2} + \frac{(a+a\text{Cos}[c+d x])^2\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4\left(5A\text{Sin}\left[\frac{d x}{2}\right]+3C\text{Sin}\left[\frac{d x}{2}\right]\right)}{12d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])^3\left(A+C\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^2, x, 6, 0\right\}$$

$$\frac{1}{2} a^3(6A+5C) x + \frac{3a^3 A\text{ArcTanh}[\text{Sin}[c+d x]]}{d} + \frac{5a^3 C\text{Sin}[c+d x]}{2d} - \frac{a^2(6A-5C)(a+a\text{Cos}[c+d x])\text{Sin}[c+d x]}{6d} - \frac{a(3A-C)(a+a\text{Cos}[c+d x])^2\text{Sin}[c+d x]}{3d} + \frac{A(a+a\text{Cos}[c+d x])^3\text{Tan}[c+d x]}{d}$$

$$\frac{1}{96} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(6(6A+5C)x - \frac{36 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{36 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{3(4A+15C)\text{Cos}[d x]\text{Sin}[c]}{d} + \frac{9 C \text{Cos}[2 d x]\text{Sin}[2 c]}{d} + \frac{C \text{Cos}[3 d x]\text{Sin}[3 c]}{d} + \frac{3(4A+15C)\text{Cos}[c]\text{Sin}[d x]}{d} + \frac{9 C \text{Cos}[2 c]\text{Sin}[2 d x]}{d} + \frac{C \text{Cos}[3 c]\text{Sin}[3 d x]}{d} + \frac{12 A \text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{12 A \text{Sin}\left[\frac{d x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\text{Cos}[c+d x])^3 (A+C\text{Cos}[c+d x]^2)\text{Sec}[c+d x]^4, x, 6, 0\}$$

$$3 a^3 C x + \frac{a^3(5A+6C)\text{ArcTanh}[\text{Sin}[c+d x]]}{2d} - \frac{5 a^3 A \text{Sin}[c+d x]}{2d} + \frac{a^2(5A+3C)(a+a\text{Cos}[c+d x])\text{Tan}[c+d x]}{3d} + \frac{a A (a+a\text{Cos}[c+d x])^2 \text{Sec}[c+d x]\text{Tan}[c+d x]}{2d} + \frac{A(a+a\text{Cos}[c+d x])^3\text{Sec}[c+d x]^2\text{Tan}[c+d x]}{3d}$$

$$\frac{3}{8} C x (a+a\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 + \frac{(-5A-6C)(a+a\text{Cos}[c+d x])^3 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6}{16d} + \frac{(5A+6C)(a+a\text{Cos}[c+d x])^3 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6}{16d} + \frac{C\text{Cos}[d x](a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\text{Sin}[c]}{8d} + \frac{C\text{Cos}[c](a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\text{Sin}[d x]}{8d} + \frac{A(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\text{Sin}\left[\frac{d x}{2}\right]}{48d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^3} + \frac{(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(5A\text{Cos}\left[\frac{c}{2}\right]-4A\text{Sin}\left[\frac{c}{2}\right]\right)}{48d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^2} + \frac{(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(11A\text{Sin}\left[\frac{d x}{2}\right]+3C\text{Sin}\left[\frac{d x}{2}\right]\right)}{24d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)} + \frac{A(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\text{Sin}\left[\frac{d x}{2}\right]}{48d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^3} + \frac{(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(-5A\text{Cos}\left[\frac{c}{2}\right]-4A\text{Sin}\left[\frac{c}{2}\right]\right)}{48d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)^2} + \frac{(a+a\text{Cos}[c+d x])^3\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(11A\text{Sin}\left[\frac{d x}{2}\right]+3C\text{Sin}\left[\frac{d x}{2}\right]\right)}{24d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\text{Cos}[c+d x])^3 (A+C\text{Cos}[c+d x]^2)\text{Sec}[c+d x]^5, x, 6, 0\}$$

$$a^3 C x + \frac{a^3(15A+28C)\text{ArcTanh}[\text{Sin}[c+d x]]}{8d} + \frac{5 a^3(3A+4C)\text{Tan}[c+d x]}{8d} + \frac{a^2(5A+4C)(a+a\text{Sec}[c+d x])\text{Tan}[c+d x]}{8d} + \frac{a A (a+a\text{Sec}[c+d x])^2\text{Tan}[c+d x]}{4d} + \frac{A(a+a\text{Sec}[c+d x])^3\text{Tan}[c+d x]}{4d}$$

$$\frac{1}{512\,d}\,a^3\,(1+\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$
$$\left(-8\,(15\,A+28\,C)\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(24\,C\,d\,x\,\text{Cos}[c]+16\,C\,d\,x\,\text{Cos}[c+2\,d\,x]+16\,C\,d\,x\,\text{Cos}[3\,c+2\,d\,x]+4\,C\,d\,x\,\text{Cos}[3\,c+4\,d\,x]+$$
$$4\,C\,d\,x\,\text{Cos}[5\,c+4\,d\,x]-72\,A\,\text{Sin}[c]-72\,C\,\text{Sin}[c]+23\,A\,\text{Sin}[d\,x]+4\,C\,\text{Sin}[d\,x]+23\,A\,\text{Sin}[2\,c+d\,x]+4\,C\,\text{Sin}[2\,c+d\,x]+$$
$$88\,A\,\text{Sin}[c+2\,d\,x]+72\,C\,\text{Sin}[c+2\,d\,x]-8\,A\,\text{Sin}[3\,c+2\,d\,x]-24\,C\,\text{Sin}[3\,c+2\,d\,x]+15\,A\,\text{Sin}[2\,c+3\,d\,x]+$$
$$4\,C\,\text{Sin}[2\,c+3\,d\,x]+15\,A\,\text{Sin}[4\,c+3\,d\,x]+4\,C\,\text{Sin}[4\,c+3\,d\,x]+24\,A\,\text{Sin}[3\,c+4\,d\,x]+24\,C\,\text{Sin}[3\,c+4\,d\,x])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^4\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3,\ x,\ 7,\ 0\right\}$$

$$2\,a^4\,(2\,A+3\,C)\,x+\frac{a^4\,(13\,A+2\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}-\frac{5\,a^4\,(A-2\,C)\,\text{Sin}[c+d\,x]}{2\,d}-$$
$$\frac{a^3\,(9\,A-4\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{3\,d}-\frac{a^2\,(15\,A-2\,C)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{6\,d}+$$
$$\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Tan}[c+d\,x]}{d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$
$$\frac{1}{8}\,(2\,A+3\,C)\,x\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8+$$
$$\frac{(-13\,A-2\,C)\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{32\,d}+$$
$$\frac{(13\,A+2\,C)\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{32\,d}+$$
$$\frac{(4\,A+27\,C)\,\text{Cos}[d\,x]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[c]}{64\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[2\,c]}{16\,d}+$$
$$\frac{C\,\text{Cos}[3\,d\,x]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[3\,c]}{192\,d}+\frac{(4\,A+27\,C)\,\text{Cos}[c]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[d\,x]}{64\,d}+$$
$$\frac{C\,\text{Cos}[2\,c]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[2\,d\,x]}{16\,d}+\frac{C\,\text{Cos}[3\,c]\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}[3\,d\,x]}{192\,d}+$$
$$\frac{A\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$
$$\frac{A\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Sin}\left[\frac{d\,x}{2}\right]}{4\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^4\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$a^4\,C\,x+\frac{a^4\,(7\,A+12\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{a^4\,(7\,A+10\,C)\,\text{Tan}[c+d\,x]}{2\,d}+\frac{a^3\,(7\,A+8\,C)\,(a+a\,\text{Sec}[c+d\,x])\,\text{Tan}[c+d\,x]}{6\,d}+$$
$$\frac{a^2\,(7\,A+5\,C)\,(a+a\,\text{Sec}[c+d\,x])^2\,\text{Tan}[c+d\,x]}{15\,d}+\frac{a\,A\,(a+a\,\text{Sec}[c+d\,x])^3\,\text{Tan}[c+d\,x]}{5\,d}+\frac{A\,(a+a\,\text{Sec}[c+d\,x])^4\,\text{Tan}[c+d\,x]}{5\,d}$$

$$\frac{1}{7680\,d}\,a^4\,(1+\text{Cos}[c+d\,x])^4\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8$$
$$\left(-240\,(7\,A+12\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+240\,(7\,A+12\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,(150\,C\,d\,x\,\text{Cos}[d\,x]+150\,C\,d\,x\,\text{Cos}[2\,c+d\,x]+75\,C\,d\,x\,\text{Cos}[2\,c+3\,d\,x]+75\,C\,d\,x\,\text{Cos}[4\,c+3\,d\,x]+$$
$$15\,C\,d\,x\,\text{Cos}[4\,c+5\,d\,x]+15\,C\,d\,x\,\text{Cos}[6\,c+5\,d\,x]+1180\,A\,\text{Sin}[d\,x]+1220\,C\,\text{Sin}[d\,x]-480\,A\,\text{Sin}[2\,c+d\,x]-$$
$$780\,C\,\text{Sin}[2\,c+d\,x]+330\,A\,\text{Sin}[c+2\,d\,x]+120\,C\,\text{Sin}[c+2\,d\,x]+330\,A\,\text{Sin}[3\,c+2\,d\,x]+120\,C\,\text{Sin}[3\,c+2\,d\,x]+$$
$$800\,A\,\text{Sin}[2\,c+3\,d\,x]+820\,C\,\text{Sin}[2\,c+3\,d\,x]-30\,A\,\text{Sin}[4\,c+3\,d\,x]-180\,C\,\text{Sin}[4\,c+3\,d\,x]+105\,A\,\text{Sin}[3\,c+4\,d\,x]+$$
$$\left.60\,C\,\text{Sin}[3\,c+4\,d\,x]+105\,A\,\text{Sin}[5\,c+4\,d\,x]+60\,C\,\text{Sin}[5\,c+4\,d\,x]+166\,A\,\text{Sin}[4\,c+5\,d\,x]+200\,C\,\text{Sin}[4\,c+5\,d\,x]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$
$$-\frac{C\,x}{a}+\frac{C\,\text{Sin}[c+d\,x]}{a\,d}+\frac{(A+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$\frac{1}{4\,a\,d}\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-2\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-2\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+4\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$
$$\frac{C\,x}{a}+\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(C\,d\,x-A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-\right.$$
$$\left.(A+C)\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 4,\ 0\right\}$$
$$-\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}+\frac{(2\,A+C)\,\text{Tan}[c+d\,x]}{a\,d}-\frac{(A+C)\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(4\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left((A+C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-\frac{2\,(A+2\,(A+C)\,\mathrm{Cos}[c])\,\mathrm{Sin}\left[\frac{c}{2}\right]}{\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Cos}\left[\frac{5\,c}{2}\right]}+A\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]\right)\right)\right)\right)\Big/\left(a\,d\,(1+\mathrm{Cos}[c+d\,x])\,(2\,A+C+C\,\mathrm{Cos}[2\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{(3\,A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a\,d}-\frac{(2\,A+C)\,\mathrm{Tan}[c+d\,x]}{a\,d}+\frac{(3\,A+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\mathrm{Cos}[c+d\,x])}\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-4\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-2\,(3\,A+2\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+6\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+4\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-4\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]+\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$-\frac{(3\,A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a\,d}+\frac{2\,(4\,A+3\,C)\,\mathrm{Tan}[c+d\,x]}{3\,a\,d}-\frac{(3\,A+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}+\frac{(4\,A+3\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{(3A+2C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+dx])}+\frac{(-3A-2C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+dx])}+$$

$$\frac{2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+C\,\mathrm{Sin}\left[\frac{dx}{2}\right]\right)}{d\,(a+a\,\mathrm{Cos}[c+dx])}+\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Sin}\left[\frac{dx}{2}\right]}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(-A\,\mathrm{Cos}\left[\frac{c}{2}\right]+2A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(5A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+3C\,\mathrm{Sin}\left[\frac{dx}{2}\right]\right)}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}+$$

$$\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\mathrm{Sin}\left[\frac{dx}{2}\right]}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(A\,\mathrm{Cos}\left[\frac{c}{2}\right]+2A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{2\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(5A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+3C\,\mathrm{Sin}\left[\frac{dx}{2}\right]\right)}{3\,d\,(a+a\,\mathrm{Cos}[c+dx])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]\left(A+C\,\mathrm{Cos}[c+dx]^2\right)}{(a+a\,\mathrm{Cos}[c+dx])^2},\ x,\ 4,\ 0\right\}$$

$$-\frac{2Cx}{a^2}+\frac{(A+4C)\,\mathrm{Sin}[c+dx]}{3a^2d}-\frac{(A+C)\,\mathrm{Cos}[c+dx]^2\,\mathrm{Sin}[c+dx]}{3d\,(a+a\,\mathrm{Cos}[c+dx])^2}+\frac{2C\,\mathrm{Sin}[c+dx]}{a\,d\,(a+a\,\mathrm{Cos}[c+dx])}$$

$$\frac{1}{48a^2d}\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^3\left(-36Cdx\,\mathrm{Cos}\left[\frac{dx}{2}\right]-36Cdx\,\mathrm{Cos}\left[c+\frac{dx}{2}\right]-12Cdx\,\mathrm{Cos}\left[c+\frac{3dx}{2}\right]-\right.$$
$$12Cdx\,\mathrm{Cos}\left[2c+\frac{3dx}{2}\right]+12A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+66C\,\mathrm{Sin}\left[\frac{dx}{2}\right]-12A\,\mathrm{Sin}\left[c+\frac{dx}{2}\right]-30C\,\mathrm{Sin}\left[c+\frac{dx}{2}\right]+$$
$$\left.8A\,\mathrm{Sin}\left[c+\frac{3dx}{2}\right]+41C\,\mathrm{Sin}\left[c+\frac{3dx}{2}\right]+9C\,\mathrm{Sin}\left[2c+\frac{3dx}{2}\right]+3C\,\mathrm{Sin}\left[2c+\frac{5dx}{2}\right]+3C\,\mathrm{Sin}\left[3c+\frac{5dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+dx]^2}{(a+a\,\mathrm{Cos}[c+dx])^2},\ x,\ 3,\ 0\right\}$$

$$\frac{Cx}{a^2}+\frac{(A+C)\,\mathrm{Sin}[c+dx]}{3d\,(a+a\,\mathrm{Cos}[c+dx])^2}+\frac{(A-5C)\,\mathrm{Sin}[c+dx]}{3a\,d\,(a+a\,\mathrm{Cos}[c+dx])}$$

$$\frac{1}{24a^2d}\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^3$$
$$\left(9Cdx\,\mathrm{Cos}\left[\frac{dx}{2}\right]+9Cdx\,\mathrm{Cos}\left[c+\frac{dx}{2}\right]+3Cdx\,\mathrm{Cos}\left[c+\frac{3dx}{2}\right]+3Cdx\,\mathrm{Cos}\left[2c+\frac{3dx}{2}\right]+6A\,\mathrm{Sin}\left[\frac{dx}{2}\right]-\right.$$
$$\left.18C\,\mathrm{Sin}\left[\frac{dx}{2}\right]+12C\,\mathrm{Sin}\left[c+\frac{dx}{2}\right]+2A\,\mathrm{Sin}\left[c+\frac{3dx}{2}\right]-10C\,\mathrm{Sin}\left[c+\frac{3dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 3,\ 0\right\}$$

$$\frac{A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^2\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{2\,(2\,A-C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{3\,a^2\,d\,(1+\mathrm{Cos}[c+d\,x])^2}$$

$$2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(6\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$

$$(A+C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,(2\,A-C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+(A+C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Tan}\left[\frac{c}{2}\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^2\,d}+\frac{(10\,A+C)\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,d}-\frac{(A+C)\,\mathrm{Tan}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{2\,A\,\mathrm{Tan}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a^2}\Bigg(\frac{16\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}-$$

$$\frac{16\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{4\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Cos}[c+d\,x]^2\,\mathrm{Sec}\left[\frac{c}{2}\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{8\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\,\mathrm{Sec}\left[\frac{c}{2}\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(7\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{4\,(A+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$\frac{(7\,A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^2\,d}-\frac{4\,(4\,A+C)\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,d}+$$

$$\frac{(7\,A+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^2\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{2\,(4\,A+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{48 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \left(96 (7 A+2 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+ \text{Sec}\left[\frac{c}{2}\right] \text{Sec}[c] \text{Sec}[c+d x]^2 \left(-2 (7 A+10 C) \text{Sin}\left[\frac{d x}{2}\right]+(97 A+22 C) \text{Sin}\left[\frac{3 d x}{2}\right]-126 A \text{Sin}\left[c-\frac{d x}{2}\right]- 36 C \text{Sin}\left[c-\frac{d x}{2}\right]+42 A \text{Sin}\left[c+\frac{d x}{2}\right]+36 C \text{Sin}\left[c+\frac{d x}{2}\right]-98 A \text{Sin}\left[2 c+\frac{d x}{2}\right]-20 C \text{Sin}\left[2 c+\frac{d x}{2}\right]- 3 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-18 C \text{Sin}\left[c+\frac{3 d x}{2}\right]+37 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+22 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-63 A \text{Sin}\left[3 c+\frac{3 d x}{2}\right]- 18 C \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+75 A \text{Sin}\left[c+\frac{5 d x}{2}\right]+18 C \text{Sin}\left[c+\frac{5 d x}{2}\right]+15 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-6 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+ 39 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+18 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-21 A \text{Sin}\left[4 c+\frac{5 d x}{2}\right]-6 C \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+ 32 A \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+8 C \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+12 A \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+20 A \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+8 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^4}{(a+a \text{Cos}[c+d x])^2}, x, 7, 0\right\}$$

$$-\frac{(5 A+2 C) \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}+\frac{2 (12 A+5 C) \text{Tan}[c+d x]}{3 a^2 d}-\frac{(5 A+2 C) \text{Sec}[c+d x] \text{Tan}[c+d x]}{a^2 d}+ \frac{(12 A+5 C) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 a^2 d}-\frac{(A+C) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}-\frac{2 (5 A+2 C) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 a d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{48 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \left(192 (5 A+2 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+ \text{Sec}\left[\frac{c}{2}\right] \text{Sec}[c] \text{Sec}[c+d x]^3 \left(-3 (A+8 C) \text{Sin}\left[\frac{d x}{2}\right]+(155 A+66 C) \text{Sin}\left[\frac{3 d x}{2}\right]-153 A \text{Sin}\left[c-\frac{d x}{2}\right]-60 C \text{Sin}\left[c-\frac{d x}{2}\right]+ 21 A \text{Sin}\left[c+\frac{d x}{2}\right]+24 C \text{Sin}\left[c+\frac{d x}{2}\right]-135 A \text{Sin}\left[2 c+\frac{d x}{2}\right]-60 C \text{Sin}\left[2 c+\frac{d x}{2}\right]+25 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-4 C \text{Sin}\left[c+\frac{3 d x}{2}\right]+ 45 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+36 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-85 A \text{Sin}\left[3 c+\frac{3 d x}{2}\right]-34 C \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+99 A \text{Sin}\left[c+\frac{5 d x}{2}\right]+ 42 C \text{Sin}\left[c+\frac{5 d x}{2}\right]+21 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+33 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+24 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-45 A \text{Sin}\left[4 c+\frac{5 d x}{2}\right]- 18 C \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+57 A \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+24 C \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+18 A \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+3 C \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+ 24 A \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+15 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-15 A \text{Sin}\left[5 c+\frac{7 d x}{2}\right]-6 C \text{Sin}\left[5 c+\frac{7 d x}{2}\right]+24 A \text{Sin}\left[3 c+\frac{9 d x}{2}\right]+ 10 C \text{Sin}\left[3 c+\frac{9 d x}{2}\right]+11 A \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+3 C \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+13 A \text{Sin}\left[5 c+\frac{9 d x}{2}\right]+7 C \text{Sin}\left[5 c+\frac{9 d x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^4 \left(A+C \text{Cos}[c+d x]^2\right)}{(a+a \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$

$$-\frac{(6A+23C)\,x}{2a^3}+\frac{8\,(9A+34C)\,\text{Sin}[c+dx]}{15a^3d}-\frac{(6A+23C)\,\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{2a^3d}+\frac{4\,(9A+34C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{15a^3d}-$$
$$\frac{(A+C)\,\text{Cos}[c+dx]^5\,\text{Sin}[c+dx]}{5d\,(a+a\,\text{Cos}[c+dx])^3}-\frac{(3A+13C)\,\text{Cos}[c+dx]^4\,\text{Sin}[c+dx]}{15ad\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(6A+23C)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{3a^2d\,(a+a\,\text{Cos}[c+dx])}$$
$$-\frac{1}{480a^3d\,(1+\text{Cos}[c+dx])^3}$$
$$\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]\left(600\,(6A+23C)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]+600\,(6A+23C)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]+1800\,A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+\right.$$
$$6900\,C\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+1800\,A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+6900\,C\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+360\,A\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+$$
$$1380\,C\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+360\,A\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]+1380\,C\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]-7020\,A\,\text{Sin}\left[\frac{dx}{2}\right]-$$
$$20\,410\,C\,\text{Sin}\left[\frac{dx}{2}\right]+4500\,A\,\text{Sin}\left[c+\frac{dx}{2}\right]+11\,110\,C\,\text{Sin}\left[c+\frac{dx}{2}\right]-4860\,A\,\text{Sin}\left[c+\frac{3dx}{2}\right]-15\,380\,C\,\text{Sin}\left[c+\frac{3dx}{2}\right]+$$
$$900\,A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+380\,C\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-1452\,A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-4777\,C\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-$$
$$300\,A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-1625\,C\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-60\,A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-230\,C\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-60\,A\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-$$
$$\left.230\,C\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+20\,C\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+20\,C\,\text{Sin}\left[5c+\frac{9dx}{2}\right]-5\,C\,\text{Sin}\left[5c+\frac{11dx}{2}\right]-5\,C\,\text{Sin}\left[6c+\frac{11dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^3\left(A+C\,\text{Cos}[c+dx]^2\right)}{(a+a\,\text{Cos}[c+dx])^3},\ x,\ 5,\ 0\right\}$$

$$\frac{(2A+13C)\,x}{2a^3}-\frac{2\,(11A+76C)\,\text{Sin}[c+dx]}{15a^3d}+\frac{(2A+13C)\,\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{2a^3d}-$$
$$\frac{(A+C)\,\text{Cos}[c+dx]^4\,\text{Sin}[c+dx]}{5d\,(a+a\,\text{Cos}[c+dx])^3}-\frac{(A+11C)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{15ad\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(11A+76C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{15a^2d\,(a+a\,\text{Cos}[c+dx])}$$
$$\frac{1}{480a^3d\,(1+\text{Cos}[c+dx])^3}$$
$$\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]\left(600\,(2A+13C)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]+600\,(2A+13C)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]+600\,A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+\right.$$
$$3900\,C\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+600\,A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+3900\,C\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+120\,A\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+$$
$$780\,C\,dx\,\text{Cos}\left[2c+\frac{5dx}{2}\right]+120\,A\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]+780\,C\,dx\,\text{Cos}\left[3c+\frac{5dx}{2}\right]-2960\,A\,\text{Sin}\left[\frac{dx}{2}\right]-$$
$$12\,760\,C\,\text{Sin}\left[\frac{dx}{2}\right]+2160\,A\,\text{Sin}\left[c+\frac{dx}{2}\right]+7560\,C\,\text{Sin}\left[c+\frac{dx}{2}\right]-1840\,A\,\text{Sin}\left[c+\frac{3dx}{2}\right]-9230\,C\,\text{Sin}\left[c+\frac{3dx}{2}\right]+$$
$$720\,A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+930\,C\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-512\,A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-2782\,C\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-$$
$$\left.750\,C\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-105\,C\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-105\,C\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+15\,C\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+15\,C\,\text{Sin}\left[5c+\frac{9dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^2\left(A+C\,\text{Cos}[c+dx]^2\right)}{(a+a\,\text{Cos}[c+dx])^3},\ x,\ 5,\ 0\right\}$$

$$-\frac{3Cx}{a^3}+\frac{(2A+27C)\,\text{Sin}[c+dx]}{15a^3d}-\frac{(A+C)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{5d\,(a+a\,\text{Cos}[c+dx])^3}+\frac{(A-9C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{15ad\,(a+a\,\text{Cos}[c+dx])^2}+\frac{3C\,\text{Sin}[c+dx]}{a^2d\,(a+a\,\text{Cos}[c+dx])}$$

$$-\frac{1}{960\,a^3\,d}\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\left(900\,C\,d\,x\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]+900\,C\,d\,x\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]+450\,C\,d\,x\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]+450\,C\,d\,x\,\mathrm{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+90\,C\,d\,x\,\mathrm{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+90\,C\,d\,x\,\mathrm{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-160\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-1755\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+120\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+1125\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-80\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-1215\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+60\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+225\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-28\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-363\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-75\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-15\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-15\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$-\frac{3\,A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^3\,d}+\frac{2\,(36\,A+C)\,\mathrm{Tan}[c+d\,x]}{15\,a^3\,d}-\frac{(A+C)\,\mathrm{Tan}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(9\,A-C)\,\mathrm{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{3\,A\,\mathrm{Tan}[c+d\,x]}{a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a^3}\left(\frac{48\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^3\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}-\frac{48\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^3\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+\frac{1}{60\,d\,(1+\mathrm{Cos}[c+d\,x])^3\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(-255\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-20\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+567\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+22\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-600\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-10\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+375\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+10\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-480\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-20\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-60\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+402\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+22\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-225\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+315\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+10\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+30\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+240\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+10\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-45\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+72\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+2\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+15\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+57\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+2\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$\frac{(13\,A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^3\,d}-\frac{2\,(76\,A+11\,C)\,\mathrm{Tan}[c+d\,x]}{15\,a^3\,d}+\frac{(13\,A+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^3\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(11\,A+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(76\,A+11\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{15\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(1920\,(13\,A+2\,C)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left(-5\,(247\,A+98\,C)\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,(761\,A+106\,C)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-4329\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-\right.$$
$$654\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+1989\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+654\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-3575\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-490\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$
$$475\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-350\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+2005\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+530\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-2275\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-$$
$$350\,C\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2673\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+378\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+105\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-150\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$1593\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+378\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-975\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-150\,C\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$
$$1325\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+190\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+255\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-30\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$875\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+190\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-195\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-30\,C\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+$$
$$\left.304\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+44\,C\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+90\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+214\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+44\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 8,\ 0\right\}$$
$$-\frac{(23\,A+6\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^3\,d}+\frac{8\,(34\,A+9\,C)\,\text{Tan}[c+d\,x]}{15\,a^3\,d}-$$
$$\frac{(23\,A+6\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^3\,d}+\frac{4\,(34\,A+9\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,a^3\,d}-$$
$$\frac{(A+C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(13\,A+3\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(23\,A+6\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{960\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(3840\,(23\,A+6\,C)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\left(-36\,(69\,A+49\,C)\,\text{Sin}\left[\frac{d\,x}{2}\right]+2\,(6311\,A+1686\,C)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-13\,340\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-\right.$$
$$3480\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+4140\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+2100\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-11\,684\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-3144\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$
$$450\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-960\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+5022\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+2232\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-8050\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-$$
$$2100\,C\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+9230\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+2460\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+630\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-390\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$4230\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+1710\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-4370\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-1140\,C\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$
$$5347\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+1422\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+875\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-60\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$2747\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+1032\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-1725\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-450\,C\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+$$
$$2375\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+630\,C\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+655\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+60\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+1375\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+$$
$$480\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-345\,A\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-90\,C\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+544\,A\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+144\,C\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+$$
$$\left.\left.200\,A\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+30\,C\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+344\,A\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+114\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^4\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(2\,A+21\,C)\,x}{2\,a^4}-\frac{32\,(5\,A+54\,C)\,\text{Sin}[c+d\,x]}{105\,a^4\,d}+\frac{(2\,A+21\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^4\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^5\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-$$
$$\frac{2\,C\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(10\,A+129\,C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{16\,(5\,A+54\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{105\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{6720\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}$$
$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(14\,700\,(2\,A+21\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+14\,700\,(2\,A+21\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+17\,640\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+\right.$$
$$185\,220\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+17\,640\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+185\,220\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+5880\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$61\,740\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+5880\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+61\,740\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+840\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$8820\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+840\,A\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]+8820\,C\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]-79\,520\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-$$
$$539\,490\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+66\,080\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+386\,190\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-57\,120\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-422\,478\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$
$$30\,240\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+132\,930\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-22\,400\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-181\,461\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$6720\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3675\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-4160\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-36\,003\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$
$$\left.9555\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-945\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-945\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$-\frac{4\,C\,x}{a^4}+\frac{2\,(3\,A+122\,C)\,\text{Sin}[c+d\,x]}{105\,a^4\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}+$$
$$\frac{2\,(A-6\,C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(3\,A-88\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{4\,C\,\text{Sin}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{26\,880\,a^4\,d}\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^7$$
$$\left(29\,400\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+29\,400\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+17\,640\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+17\,640\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+\right.$$
$$5880\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+5880\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+840\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+840\,C\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]-$$
$$2520\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-60\,830\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+2520\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+46\,130\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1764\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$46\,116\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+1260\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+18\,060\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-588\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$
$$19\,292\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+420\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+2100\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-144\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$
$$\left.3791\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-735\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-105\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-105\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 7,\ 0\right\}$$

$$-\frac{4\,A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}+\frac{2\,(332\,A+3\,C)\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{(A+C)\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-$$
$$\frac{2\,(6\,A-C)\,\text{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(88\,A-3\,C)\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{4\,A\,\text{Tan}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a^4}\left(\frac{128\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Cos}[c+d\,x]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\text{Sec}[c+d\,x]^2\right)}{d\,(1+\text{Cos}[c+d\,x])^4\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}-\right.$$

$$\frac{128\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Cos}[c+d\,x]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\text{Sec}[c+d\,x]^2\right)}{d\,(1+\text{Cos}[c+d\,x])^4\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{840\,d\,(1+\text{Cos}[c+d\,x])^4\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}[c]\,\left(C+A\,\text{Sec}[c+d\,x]^2\right)$$

$$\left(-10\,780\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-210\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+18\,788\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+252\,C\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-20\,524\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-126\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$

$$14\,644\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+126\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-16\,660\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-210\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-4690\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$14\,378\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+252\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9100\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+11\,668\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+132\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$

$$630\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+9358\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+132\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2940\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+4228\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$

$$42\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+315\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3493\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+42\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-420\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+$$

$$\left.\left.664\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+6\,C\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+105\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+559\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+6\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 8,\ 0\right\}$$

$$\frac{(21\,A+2\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^4\,d}-\frac{32\,(54\,A+5\,C)\,\text{Tan}[c+d\,x]}{105\,a^4\,d}+$$

$$\frac{(21\,A+2\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^4\,d}-\frac{(A+C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{2\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{5\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-$$

$$\frac{(129\,A+10\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{16\,(54\,A+5\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{105\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{6720\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(53\,760\,(21\,A+2\,C)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\left(-14\,(5229\,A+1010\,C)\,\text{Sin}\left[\frac{d\,x}{2}\right]+4\,(41\,667\,A+3790\,C)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-183\,162\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-\right.$$
$$17\,220\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+100\,842\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+17\,220\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-155\,526\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$
$$14\,140\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-37\,380\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9800\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+101\,148\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+$$
$$15\,160\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-102\,900\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-9800\,C\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+119\,364\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+$$
$$10\,920\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-8820\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-4760\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+78\,204\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+$$
$$10\,920\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-49\,980\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-4760\,C\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+64\,053\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$
$$5890\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+3885\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-1470\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+44\,733\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+$$
$$5890\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-15\,435\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-1470\,C\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+21\,987\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+$$
$$2030\,C\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+3675\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-210\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+16\,107\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+$$
$$2030\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-2205\,A\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-210\,C\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+3456\,A\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+$$
$$\left.320\,C\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+840\,A\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+2616\,A\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+320\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 9,\ 0\right\}$$
$$-\frac{2\,(11\,A+2\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}+\frac{8\,(454\,A+83\,C)\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{2\,(11\,A+2\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{a^4\,d}+$$
$$\frac{4\,(454\,A+83\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{(A+C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{2\,(8\,A+C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-$$
$$\frac{(178\,A+31\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{4\,(11\,A+2\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{32\,(11\,A+2\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{32\,(11\,A+2\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\text{Cos}[c+d\,x])^4}+$$

$$\frac{1}{6720\,d\,(a+a\,\text{Cos}[c+d\,x])^4}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3$$

$$\Big(-102\,564\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-36\,568\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+318\,612\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+58\,464\,C\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-339\,548\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-$$

$$61\,816\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+142\,428\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+43\,336\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-299\,684\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-55\,048\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$

$$50\,652\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-23\,709\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+153\,972\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+43\,029\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$215\,292\,A\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-39\,144\,C\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+242\,862\,A\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+44\,524\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$

$$10\,850\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-11\,935\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+129\,742\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+33\,919\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$

$$123\,970\,A\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-22\,540\,C\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+148\,722\,A\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+27\,244\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$

$$8050\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-4060\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+86\,002\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+21\,364\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-$$

$$54\,670\,A\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-9940\,C\,\text{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+70\,998\,A\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+12\,996\,C\,\text{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+$$

$$10\,710\,A\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-420\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+44\,118\,A\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+10\,476\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-$$

$$16\,170\,A\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-2940\,C\,\text{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+23\,114\,A\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+4228\,C\,\text{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+$$

$$5530\,A\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+315\,C\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+15\,274\,A\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+3493\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-$$

$$2310\,A\,\text{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]-420\,C\,\text{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]+3632\,A\,\text{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]+664\,C\,\text{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]+$$

$$1120\,A\,\text{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]+2512\,A\,\text{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]+559\,C\,\text{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]\Big)$$

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x],\ x,\ 3,\ 0\right\}$$

$$\frac{2\,\sqrt{2}\,a\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a\,C\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,C\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{2}\,a\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{a\,(A-2\,C)\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Tan}[c+d\,x]}{d}$$

???

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3,\ x,\ 3,\ 0\right\}$$

$$\frac{a\,(3A+8C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+$$

$$\frac{a\,A\,\text{Tan}[c+dx]}{4\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{A\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2\,d}$$

$$\frac{1}{32\,d}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]\left(-2\,i\sqrt{2}\,(3A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]-\right.$$

$$2\,i\sqrt{2}\,(3A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]+$$

$$2\sqrt{2}\,(3A+8C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-\sqrt{2}\,(3A+8C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-$$

$$\sqrt{2}\,(3A+8C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)\right]+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{4\,A\left(3\,\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}+$$

$$\left.\frac{8\,A\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}-\frac{4\,A\left(3\,\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+dx]}\,\left(A+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{a\,(5A+8C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{a\,(5A+8C)\,\text{Tan}[c+dx]}{8\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+$$

$$\frac{a\,A\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{12\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{A\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3\,d}$$

$$\frac{1}{192\,d}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]\left(-6\,i\sqrt{2}\,(5A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]-\right.$$

$$6\,i\sqrt{2}\,(5A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]+$$

$$6\sqrt{2}\,(5A+8C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-3\sqrt{2}\,(5A+8C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-$$

$$3\sqrt{2}\,(5A+8C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{24\,A\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{12\left((5A+8C)\,\text{Cos}\left[\frac{c}{2}\right]-(3A+8C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\left.\frac{24\,A\,\text{Sin}\left[\frac{dx}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}-\frac{12\left((5A+8C)\,\text{Cos}\left[\frac{c}{2}\right]+(3A+8C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a\,(35\,A+48\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,(35\,A+48\,C)\,\mathrm{Tan}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,(35\,A+48\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{96\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-35\,A-48\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{i\,(-35\,A-48\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{(35\,A+48\,C)\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{(-35\,A-48\,C)\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Log}\left[2\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{256\,\sqrt{2}\,d}+$$

$$\frac{(-35\,A-48\,C)\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{256\,\sqrt{2}\,d}+$$

$$\frac{A\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(7\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]-A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(35\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]+48\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]-13\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-7\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]-A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-35\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]-48\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]-13\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x],\ x,\ 4,\ 0\right\}$$

$$\frac{2\sqrt{2}\,a^2 A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{2a^2(5A+4C)\,\text{Sin}[c+d x]}{5d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{2aC\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{5d}+\frac{2C(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{5d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^2,\ x,\ 4,\ 0\right\}$$

$$\frac{3\sqrt{2}\,a^2 A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{a^2(3A-8C)\,\text{Sin}[c+d x]}{3d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{a(3A-2C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3d}+\frac{A(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Tan}[c+d x]}{d}$$

???

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{a^2(7A+8C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{a^2(5A-8C)\,\text{Sin}[c+d x]}{4d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{3aA\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Tan}[c+d x]}{4d}+\frac{A(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]\,\text{Tan}[c+d x]}{2d}$$

$$\frac{1}{64d}(a(1+\text{Cos}[c+d x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\left(-2i\sqrt{2}(7A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\text{Sin}\left[\frac{1}{4}(c+d x)\right]}\right]-\right.$$

$$2i\sqrt{2}(7A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\text{Sin}\left[\frac{1}{4}(c+d x)\right]}\right]+$$

$$2\sqrt{2}(7A+8C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\sqrt{2}(7A+8C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-$$

$$\sqrt{2}(7A+8C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)\right]+64C\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+64C\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d x}{2}\right]+$$

$$\frac{8A\,\text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{4A\left(7\,\text{Cos}\left[\frac{c}{2}\right]-5\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+$$

$$\left.\frac{8A\,\text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{4A\left(7\,\text{Cos}\left[\frac{c}{2}\right]+5\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{a^2(11A+24C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{a^2(19A+24C)\,\text{Tan}[c+d x]}{24d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{aA\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]\,\text{Tan}[c+d x]}{4d}+\frac{A(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^2\,\text{Tan}[c+d x]}{3d}$$

$$\frac{1}{384\,d}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3$$

$$\left(-6\,i\sqrt{2}\,(11\,A+24\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-6\,i\sqrt{2}\,(11\,A+24\,C)\right.$$

$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+6\sqrt{2}\,(11\,A+24\,C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$3\sqrt{2}\,(11\,A+24\,C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$3\sqrt{2}\,(11\,A+24\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}+\frac{72\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$

$$\frac{12\left((11\,A+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]-(5\,A+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}+$$

$$\left.\frac{72\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{12\left((11\,A+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]+(5\,A+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a^2\,(75\,A+112\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{32\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(75\,A+112\,C)\,\text{Tan}[c+d\,x]}{64\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(13\,A+16\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{32\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,A\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{8\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-75\,A-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{i\,(-75\,A-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(75\,A+112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(5\,A\,\text{Cos}\left[\frac{c}{2}\right]-3\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(75\,A\,\text{Cos}\left[\frac{c}{2}\right]+112\,C\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(-5\,A\,\text{Cos}\left[\frac{c}{2}\right]-3\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(-75\,A\,\text{Cos}\left[\frac{c}{2}\right]-112\,C\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^6,\ x,\ 6,\ 0\right\}$$

$$\frac{a^2\,(133\,A+176\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{64\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(133\,A+176\,C)\,\text{Tan}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(133\,A+176\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{192\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(67\,A+80\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{240\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{3\,a\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{40\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

$$\frac{i\,(-133\,A-176\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{i\,(-133\,A-176\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{(133\,A+176\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{(-133\,A-176\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{1024\,\sqrt{2}\,d}+$$

$$\frac{(-133\,A-176\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{1024\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{80\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^5}+\frac{3\,A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(29\,A\,\text{Cos}\left[\frac{c}{2}\right]+16\,C\,\text{Cos}\left[\frac{c}{2}\right]-11\,A\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(37\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+48\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(133\,A\,\text{Cos}\left[\frac{c}{2}\right]+176\,C\,\text{Cos}\left[\frac{c}{2}\right]-59\,A\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{80\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^5}+\frac{3\,A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-29\,A\,\text{Cos}\left[\frac{c}{2}\right]-16\,C\,\text{Cos}\left[\frac{c}{2}\right]-11\,A\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(37\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+48\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-133\,A\,\text{Cos}\left[\frac{c}{2}\right]-176\,C\,\text{Cos}\left[\frac{c}{2}\right]-59\,A\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x],\ x,\ 5,\ 0\right\}$$

$$\frac{2\,\sqrt{2}\,a^3\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^3\,(49\,A+32\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a^2\,(7\,A+8\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,C\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

???

Timed out after 60 seconds:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2,\ x,\ 5,\ 0\right\}$$

$$\frac{5\sqrt{2}\,a^3\,A\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^3\,(15\,A+64\,C)\,\mathrm{Sin}[c+d\,x]}{15\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{a^2\,(15\,A-16\,C)\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,d}-\frac{a\,(5\,A-2\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Tan}[c+d\,x]}{d}$$

???

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\right\}$$

$$\frac{a^3\,(19\,A+8\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{a^3\,(27\,A-56\,C)\,\mathrm{Sin}[c+d\,x]}{12\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{a^2\,(21\,A-8\,C)\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{12\,d}+\frac{5\,a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Tan}[c+d\,x]}{4\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{384\,d}(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\left(-6\,i\sqrt{2}\,(19\,A+8\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-6\,i\sqrt{2}\,(19\,A+8\,C)\right.$$

$$\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+6\sqrt{2}\,(19\,A+8\,C)\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$3\sqrt{2}\,(19\,A+8\,C)\,\mathrm{Log}\left[4+2\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$3\sqrt{2}\,(19\,A+8\,C)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+480\,C\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]+$$

$$32\,C\,\mathrm{Cos}\left[\frac{3\,d\,x}{2}\right]\mathrm{Sin}\left[\frac{3\,c}{2}\right]+480\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+32\,C\,\mathrm{Cos}\left[\frac{3\,c}{2}\right]\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+$$

$$\frac{24\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{12\,A\left(11\,\mathrm{Cos}\left[\frac{c}{2}\right]-9\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+$$

$$\left.\frac{24\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{12\,A\left(11\,\mathrm{Cos}\left[\frac{c}{2}\right]+9\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$\frac{5 a^3 (5 A+8 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c+d x)\right]}{4 \sqrt{2} d \sqrt{a+a \text{Cos}[c+d x]}} -$$

$$\frac{a^3 (49 A-24 C) \text{Sin}[c+d x]}{24 d \sqrt{a+a \text{Cos}[c+d x]}} + \frac{a^2 (31 A+24 C) \sqrt{a+a \text{Cos}[c+d x]} \text{Tan}[c+d x]}{24 d} +$$

$$\frac{5 a A (a+a \text{Cos}[c+d x])^{3/2} \text{Sec}[c+d x] \text{Tan}[c+d x]}{12 d} + \frac{A (a+a \text{Cos}[c+d x])^{5/2} \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d}$$

$$\frac{1}{768 d} (a (1+\text{Cos}[c+d x]))^{5/2} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^5$$

$$\left(-30 i \sqrt{2} (5 A+8 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c+d x)\right]-\left(-1+\sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c+d x)\right]}{\left(1+\sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c+d x)\right]-\text{Sin}\left[\frac{1}{4} (c+d x)\right]}\right] - 30 i \sqrt{2} (5 A+8 C)\right.$$

$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c+d x)\right]-\left(1+\sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c+d x)\right]}{\left(-1+\sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c+d x)\right]-\text{Sin}\left[\frac{1}{4} (c+d x)\right]}\right] + 30 \sqrt{2} (5 A+8 C) \text{Log}\left[\sqrt{2}+2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] -$$

$$15 \sqrt{2} (5 A+8 C) \text{Log}\left[4+2 \sqrt{2} \text{Cos}\left[\frac{1}{2} (c+d x)\right]-2 \sqrt{2} \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] -$$

$$15 \sqrt{2} (5 A+8 C) \text{Log}\left[-2 \left(-2+\sqrt{2} \text{Cos}\left[\frac{1}{2} (c+d x)\right]+\sqrt{2} \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)\right] + 384 C \text{Cos}\left[\frac{d x}{2}\right] \text{Sin}\left[\frac{c}{2}\right] +$$

$$384 C \text{Cos}\left[\frac{c}{2}\right] \text{Sin}\left[\frac{d x}{2}\right] + \frac{16 A}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3} + \frac{120 A \text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2} +$$

$$\frac{12 \left((25 A+8 C) \text{Cos}\left[\frac{c}{2}\right]-(15 A+8 C) \text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)} - \frac{16 A}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3} +$$

$$\left.\frac{120 A \text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2} - \frac{12 \left((25 A+8 C) \text{Cos}\left[\frac{c}{2}\right]+(15 A+8 C) \text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^{5/2} \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^5, x, 5, 0\right\}$$

$$\frac{a^3 (163 A+304 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c+d x)\right]}{32 \sqrt{2} d \sqrt{a+a \text{Cos}[c+d x]}} +$$

$$\frac{a^3 (299 A+432 C) \text{Tan}[c+d x]}{192 d \sqrt{a+a \text{Cos}[c+d x]}} + \frac{a^2 (17 A+16 C) \sqrt{a+a \text{Cos}[c+d x]} \text{Sec}[c+d x] \text{Tan}[c+d x]}{32 d} +$$

$$\frac{5 a A (a+a \text{Cos}[c+d x])^{3/2} \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{24 d} + \frac{A (a+a \text{Cos}[c+d x])^{5/2} \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{4 d}$$

$$\frac{i\,(-163\,A-304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{i\,(-163\,A-304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(163\,A+304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(23\,A\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(163\,A\,\text{Cos}\left[\frac{c}{2}\right]+176\,C\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-144\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(-23\,A\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(-163\,A\,\text{Cos}\left[\frac{c}{2}\right]-176\,C\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-144\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\,\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\,\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^6,\ x,\ 6,\ 0\right\}$$

$$\frac{a^3\,(283\,A+400\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{64\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^3\,(283\,A+400\,C)\,\text{Tan}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^3\,(787\,A+1040\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{960\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(79\,A+80\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{240\,d}+$$

$$\frac{a\,A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{8\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

$$\frac{i\,(-283\,A-400\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{i\,(-283\,A-400\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{(283\,A+400\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{(-283\,A-400\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{2048\,\sqrt{2}\,d}+$$

$$\frac{(-283\,A-400\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{2048\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{160\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^5}+\frac{5\,A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\,\text{Sin}\left[\frac{dx}{2}\right]}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(59\,A\,\text{Cos}\left[\frac{c}{2}\right]+16\,C\,\text{Cos}\left[\frac{c}{2}\right]-29\,A\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{768\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}+$$

$$\frac{5\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(15\,A\,\text{Sin}\left[\frac{dx}{2}\right]+16\,C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(283\,A\,\text{Cos}\left[\frac{c}{2}\right]+400\,C\,\text{Cos}\left[\frac{c}{2}\right]-133\,A\,\text{Sin}\left[\frac{c}{2}\right]-240\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{1024\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}-$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5}{160\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^5}+\frac{5\,A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\,\text{Sin}\left[\frac{dx}{2}\right]}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(-59\,A\,\text{Cos}\left[\frac{c}{2}\right]-16\,C\,\text{Cos}\left[\frac{c}{2}\right]-29\,A\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{768\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}+$$

$$\frac{5\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(15\,A\,\text{Sin}\left[\frac{dx}{2}\right]+16\,C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(-283\,A\,\text{Cos}\left[\frac{c}{2}\right]-400\,C\,\text{Cos}\left[\frac{c}{2}\right]-133\,A\,\text{Sin}\left[\frac{c}{2}\right]-240\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{1024\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^7,\ x,\ 7,\ 0\right\}$$

$$\frac{a^3 (1015 A + 1304 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{256 \sqrt{2} d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^3 (1015 A + 1304 C) \text{Tan}[c + d x]}{512 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^3 (1015 A + 1304 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{768 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^3 (109 A + 136 C) \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{192 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^2 (23 A + 24 C) \sqrt{a + a \text{Cos}[c + d x]} \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{96 d} + \frac{a A (a + a \text{Cos}[c + d x])^{3/2} \text{Sec}[c + d x]^4 \text{Tan}[c + d x]}{12 d} + \frac{A (a + a \text{Cos}[c + d x])^{5/2} \text{Sec}[c + d x]^5 \text{Tan}[c + d x]}{6 d}$$

$$\frac{1}{98304 d} (a (1 + \text{Cos}[c + d x]))^{5/2} \text{Sec}\left[\frac{1}{2} (c + d x)\right]^5 \left(-12 i \sqrt{2} (1015 A + 1304 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(-1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] - 12 i \sqrt{2} (1015 A + 1304 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(-1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] + 12 \sqrt{2} (1015 A + 1304 C) \text{Log}\left[\sqrt{2} + 2 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 6 \sqrt{2} (1015 A + 1304 C) \text{Log}\left[4 + 2 \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] - 2 \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 6 \sqrt{2} (1015 A + 1304 C) \text{Log}\left[-2 \left(-2 + \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] + \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)\right] + (27412 A + 18720 C + 14 (4591 A + 4056 C) \text{Cos}[c + d x] + 16 (1711 A + 1496 C) \text{Cos}[2 (c + d x)] + 21721 A \text{Cos}[3 (c + d x)] + 25448 C \text{Cos}[3 (c + d x)] + 4060 A \text{Cos}[4 (c + d x)] + 5216 C \text{Cos}[4 (c + d x)] + 3045 A \text{Cos}[5 (c + d x)] + 3912 C \text{Cos}[5 (c + d x)]) \text{Sec}[c + d x]^6 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]}{\sqrt{a + a \text{Cos}[c + d x]}}, x, 4, 0\right\}$$

$$-\frac{2 (A + C) \text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{2 \sqrt{2} A \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{2 C \text{Sin}[c + d x]}{d \sqrt{a + a \text{Cos}[c + d x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\left(A + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^2}{\sqrt{a + a \text{Cos}[c + d x]}}, x, 4, 0\right\}$$

$$\frac{2 (A + C) \text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} - \frac{\sqrt{2} A \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{A \text{Tan}[c + d x]}{d \sqrt{a + a \text{Cos}[c + d x]}}$$

???

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,(A+C)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{(7\,A+8\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,\mathrm{Tan}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,d\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,(2\,A+C+C\,\mathrm{Cos}[2\,(c+d\,x)])}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)$$

$$\Bigg(32\,(A+C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-32\,(A+C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+$$

$$2\,\sqrt{2}\,(7\,A+8\,C)\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{2\,i\,(7\,A+8\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{2\,i\,(7\,A+8\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A+8\,C)\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A+8\,C)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{8\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\,A\left(\mathrm{Cos}\left[\frac{c}{2}\right]-3\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\frac{8\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,A\left(\mathrm{Cos}\left[\frac{c}{2}\right]+3\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,(A+C)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(9\,A+8\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{(7\,A+8\,C)\,\mathrm{Tan}[c+d\,x]}{8\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{12\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{i\,(9A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]}{8\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+dx])}}+$$

$$\frac{i\,(9A+8C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]}{8\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+dx])}}-\frac{2\,(A+C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+dx])}}+$$

$$\frac{2\,(A+C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+dx])}}+\frac{(-9A-8C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{8\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+dx])}}+$$

$$\frac{(9A+8C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]}{16\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+dx])}}+$$

$$\frac{(9A+8C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]}{16\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+dx])}}+$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]}{6\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}-$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Sin}\left[\frac{dx}{2}\right]}{4\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\left(7A\,\text{Cos}\left[\frac{c}{2}\right]+8C\,\text{Cos}\left[\frac{c}{2}\right]-9A\,\text{Sin}\left[\frac{c}{2}\right]-8C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{8\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}-$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]}{6\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^3}-$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Sin}\left[\frac{dx}{2}\right]}{4\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]\left(-7A\,\text{Cos}\left[\frac{c}{2}\right]-8C\,\text{Cos}\left[\frac{c}{2}\right]-9A\,\text{Sin}\left[\frac{c}{2}\right]-8C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{8\,d\sqrt{a\,(1+\text{Cos}[c+dx])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^5}{\sqrt{a+a\,\text{Cos}[c+dx]}},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,(A+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+dx)\right]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{(107A+112C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+dx)\right]}{32\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+dx]}}-$$

$$\frac{(21A+16C)\,\text{Tan}[c+dx]}{64\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{(43A+48C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{96\,d\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{A\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{24\,d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{A\,\text{Sec}[c+dx]^3\,\text{Tan}[c+dx]}{4\,d\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{i\,(-107\,A-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{i\,(-107\,A-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+\frac{2\,(A+C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}-$$

$$\frac{2\,(A+C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+\frac{(107\,A+112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{(-107\,A-112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]}{128\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{(-107\,A-112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]}{128\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-A\,\text{Cos}\left[\frac{c}{2}\right]+7\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{48\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{32\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-21\,A\,\text{Cos}\left[\frac{c}{2}\right]-16\,C\,\text{Cos}\left[\frac{c}{2}\right]+59\,A\,\text{Sin}\left[\frac{c}{2}\right]+48\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Cos}\left[\frac{c}{2}\right]+7\,A\,\text{Sin}\left[\frac{c}{2}\right]\right)}{48\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{32\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(21\,A\,\text{Cos}\left[\frac{c}{2}\right]+16\,C\,\text{Cos}\left[\frac{c}{2}\right]+59\,A\,\text{Sin}\left[\frac{c}{2}\right]+48\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(11 A+19 C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{2 a d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{(A+C)\,\text{Cos}[c+d x]^4\,\text{Sin}[c+d x]}{2 d\,(a+a\,\text{Cos}[c+d x])^{3/2}}-\frac{(455 A+799 C)\,\text{Sin}[c+d x]}{105 a d\sqrt{a+a\,\text{Cos}[c+d x]}}-$$

$$\frac{(35 A+67 C)\,\text{Cos}[c+d x]^2\,\text{Sin}[c+d x]}{70 a d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{(7 A+11 C)\,\text{Cos}[c+d x]^3\,\text{Sin}[c+d x]}{14 a d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{(245 A+397 C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{210 a^2 d}$$

$$\frac{(-11 A-19 C)\,\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right]}{d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+\frac{(11 A+19 C)\,\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right]}{d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}-$$

$$\frac{(12 A+25 C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{c}{2}\right]}{d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+\frac{(4 A+11 C)\,\text{Cos}\left[\frac{3 d x}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{3 c}{2}\right]}{3 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}-$$

$$\frac{3 C\,\text{Cos}\left[\frac{5 d x}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{5 c}{2}\right]}{5 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+\frac{C\,\text{Cos}\left[\frac{7 d x}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{7 c}{2}\right]}{7 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}-\frac{(12 A+25 C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{d x}{2}\right]}{d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+$$

$$\frac{(4 A+11 C)\,\text{Cos}\left[\frac{3 c}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{3 d x}{2}\right]}{3 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}-\frac{3 C\,\text{Cos}\left[\frac{5 c}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{5 d x}{2}\right]}{5 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+\frac{C\,\text{Cos}\left[\frac{7 c}{2}\right]\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3\text{Sin}\left[\frac{7 d x}{2}\right]}{7 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}}+$$

$$\frac{(-A-C)\,\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3}{2 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right)^2}+\frac{(A+C)\,\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^3}{2 d\,(a\,(1+\text{Cos}[c+d x]))^{3/2}\left(\text{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right)^2}$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]}{(a+a\,\text{Cos}[c+d x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{(5 A-3 C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{2 a d\sqrt{a+a\,\text{Cos}[c+d x]}}+$$

$$\frac{2\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{a d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{(A+C)\,\text{Sin}[c+d x]}{2 d\,(a+a\,\text{Cos}[c+d x])^{3/2}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^2}{(a+a\,\text{Cos}[c+d x])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(9 A+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{2 a d\sqrt{a+a\,\text{Cos}[c+d x]}}-$$

$$\frac{3\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{a d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{(A+C)\,\text{Tan}[c+d x]}{2 d\,(a+a\,\text{Cos}[c+d x])^{3/2}}+\frac{(3 A+C)\,\text{Tan}[c+d x]}{2 a d\sqrt{a+a\,\text{Cos}[c+d x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^3}{(a+a\,\text{Cos}[c+d x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(13A+5C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{(19A+8C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2\sqrt{2}\,ad\sqrt{a+a\,\text{Cos}[c+dx]}}-$$

$$\frac{(7A+2C)\,\text{Tan}[c+dx]}{4ad\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{(A+C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2d\,(a+a\,\text{Cos}[c+dx])^{3/2}}+\frac{(2A+C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{2(13A+5C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]\left(C+A\,\text{Sec}[c+dx]^2\right)}{d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])}-$$

$$\frac{2(13A+5C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]\left(C+A\,\text{Sec}[c+dx]^2\right)}{d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])}+$$

$$\frac{(19A+8C)\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]\left(C+A\,\text{Sec}[c+dx]^2\right)}{\sqrt{2}\,d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])}+$$

$$\left(i\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\right.$$

$$\left.\text{Cos}[c+dx]^2\left(C+A\,\text{Sec}[c+dx]^2\right)\left(19\sqrt{2}\,A+8\sqrt{2}\,C-38A\,\text{Sin}\left[\frac{c}{2}\right]-16C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(2d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(i\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\right.$$

$$\left.\left(C+A\,\text{Sec}[c+dx]^2\right)\left(19\sqrt{2}\,A+8\sqrt{2}\,C-38A\,\text{Sin}\left[\frac{c}{2}\right]-16C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(2d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\right.$$

$$\left.\left(C+A\,\text{Sec}[c+dx]^2\right)\left(19\sqrt{2}\,A+8\sqrt{2}\,C-38A\,\text{Sin}\left[\frac{c}{2}\right]-16C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(4d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Cos}[c+dx]^2\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\right.$$

$$\left.\left(C+A\,\text{Sec}[c+dx]^2\right)\left(19\sqrt{2}\,A+8\sqrt{2}\,C-38A\,\text{Sin}\left[\frac{c}{2}\right]-16C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(4d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}\,(2A+C+C\,\text{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\frac{(-A-C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}+$$

$$\frac{(A+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right)^2}+$$

$$\frac{2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(-5\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]+7\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(5\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]+7\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(17\,A+9\,C)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(47\,A+24\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{3\,(7\,A+4\,C)\,\mathrm{Tan}[c+d\,x]}{8\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(13\,A+6\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{12\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A+3\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{6\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{48\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-48\,(17\,A+9\,C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Log}\left[\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]\right]+48\,(17\,A+9\,C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\right.$$

$$\text{Log}\left[\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]\right]-6\sqrt{2}\,(47\,A+24\,C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$\frac{6\,i\,(47\,A+24\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{6\,i\,(47\,A+24\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{3\,(47\,A+24\,C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{3\,(47\,A+24\,C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$(106\,A+48\,C+3\,(55\,A+36\,C)\,\text{Cos}[c+d\,x]+(74\,A+48\,C)\,\text{Cos}[2\,(c+d\,x)]+63\,A\,\text{Cos}[3\,(c+d\,x)]+36\,C\,\text{Cos}[3\,(c+d\,x)])$$

$$\left.\text{Sec}[c+d\,x]^3\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{(43\,A-5\,C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{(11\,A-5\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(115\,A+3\,C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{5\,\sqrt{2}\;A\,\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{(A+C)\,\text{Tan}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{(15\,A-C)\,\text{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(35\,A+3\,C)\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{(219\,A+43\,C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{(39\,A+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\;a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(63\,A+11\,C)\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{(A+C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{(19\,A+3\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(31\,A+7\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{(219\,A+43\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]\,\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{(-219\,A-43\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]\,\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{\sqrt{2}\,(39\,A+8\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\left(i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\right.$$

$$\left.\mathrm{Cos}[c+d\,x]^2\,\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\,\left(39\,\sqrt{2}\,A+8\,\sqrt{2}\,C-78\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\,\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\right.$$

$$\left.\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\,\left(39\,\sqrt{2}\,A+8\,\sqrt{2}\,C-78\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\,\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[2\,\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\right.$$

$$\left.\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\,\left(39\,\sqrt{2}\,A+8\,\sqrt{2}\,C-78\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\,\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[-2\,\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\right.$$

$$\left.\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\,\left(39\,\sqrt{2}\,A+8\,\sqrt{2}\,C-78\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-16\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(2\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\,\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\,\left(47\,A\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+27\,C\,\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+79\,A\,\mathrm{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+\right.\right.$$

$$\left.\left.127\,A\,\mathrm{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+19\,C\,\mathrm{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+63\,A\,\mathrm{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]+11\,C\,\mathrm{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]\right)\right)\Big/$$

$$\left(32\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right),\,x,\,8,\,0\right\}$$

$$\frac{2\,a\,(9\,A+7\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{10\,a\,(11\,A+9\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+$$

$$\frac{10\,a\,(11\,A+9\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{231\,d}+\frac{2\,a\,(9\,A+7\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{45\,d}+$$

$$\frac{2\,a\,(11\,A+9\,C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{77\,d}+\frac{4\,a\,C\,\mathrm{Cos}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{99\,d}+\frac{2\,C\,\mathrm{Cos}[c+d\,x]^{7/2}\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{11\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(9\,A+7\,C)\,\text{Cot}[c]}{15\,d}+\frac{(506\,A+435\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{1848\,d}+\frac{(18\,A+19\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{180\,d}+\right.$$

$$\frac{(44\,A+57\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{1232\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{72\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{176\,d}+\frac{(506\,A+435\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{1848\,d}+$$

$$\left.\frac{(18\,A+19\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{180\,d}+\frac{(44\,A+57\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{1232\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{72\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{176\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{77\,d\,\sqrt{1+\text{Cot}[c]^2}}\,15\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\ x,\ 7,\ 0\right\}$$

$$\frac{2\,a\,(9\,A+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{2\,a\,(7\,A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+\frac{2\,a\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,(9\,A+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{4\,a\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\;(1+\text{Cos}[c+d\,x])\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(9\,A+7\,C)\;\text{Cot}[c]}{15\,d}+\right.\right.$$

$$\frac{(28\,A+23\,C)\;\text{Cos}[d\,x]\;\text{Sin}[c]}{84\,d}+\frac{(18\,A+19\,C)\;\text{Cos}[2\,d\,x]\;\text{Sin}[2\,c]}{180\,d}+\frac{C\,\text{Cos}[3\,d\,x]\;\text{Sin}[3\,c]}{28\,d}+\frac{C\,\text{Cos}[4\,d\,x]\;\text{Sin}[4\,c]}{72\,d}+$$

$$\left.\frac{(28\,A+23\,C)\;\text{Cos}[c]\;\text{Sin}[d\,x]}{84\,d}+\frac{(18\,A+19\,C)\;\text{Cos}[2\,c]\;\text{Sin}[2\,d\,x]}{180\,d}+\frac{C\,\text{Cos}[3\,c]\;\text{Sin}[3\,d\,x]}{28\,d}+\frac{C\,\text{Cos}[4\,c]\;\text{Sin}[4\,d\,x]}{72\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\;\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\;\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\;\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\;\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\;\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\;\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])\;\left(A+C\,\text{Cos}[c+d\,x]^2\right),\;x,\;6,\;0\right\}$$

$$\frac{2\,a\,(5\,A+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(7\,A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{2\,a\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{4\,a\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(5\,A+3\,C)\,\text{Cot}[c]}{5\,d}+\frac{(28\,A+23\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\right.\right.$$

$$\left.\frac{C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{(28\,A+23\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,a\,(5\,A+3\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{2\,a\,(3\,A+C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+\frac{4\,a\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,d}+\frac{2\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{5\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(5\,A+3\,C)\,\text{Cot}[c]}{5\,d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}\right)-$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,(A-C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(3\,A+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-$$

$$\frac{2\,a\,(3\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(-2\,A+C+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}\right)-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,a\,(A-C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{d}+\frac{2\,a\,(A+3\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+\frac{4\,a\,A\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\;(1+\text{Cos}[c+d\,x])\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(-2\,A+C+C\,\text{Cos}[2\,c])\;\text{Csc}[2\,c]}{d}+\frac{A\,\text{Sec}[c]\;\text{Sec}[c+d\,x]^2\;\text{Sin}[d\,x]}{3\,d}+\frac{\text{Sec}[c]\;\text{Sec}[c+d\,x]\;(A\,\text{Sin}[c]+3\,A\,\text{Sin}[d\,x])}{3\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\;\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\;\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\;\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\;\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{-\sqrt{1+\text{Cot}[c]^2}\;\text{Sin}[c]\;\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]\;\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\;\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\;\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\;\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\;\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\;\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\;\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\;x,\;6,\;0\right\}$$

$$-\frac{2\,a\,(3\,A+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(A+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+$$

$$\frac{4\,a\,A\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(3\,A+5\,C)\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\frac{2\,(3\,A+5\,C)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{5\,d}+\right.\right.$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+5\,A\,\text{Sin}[d\,x])}{15\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,A\,\text{Sin}[c]+9\,A\,\text{Sin}[d\,x]+15\,C\,\text{Sin}[d\,x])}{15\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{9/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,a\,(3\,A+5\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{2\,a\,(5\,A+7\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+\frac{4\,a\,A\,\mathrm{Sin}[c+d\,x]}{35\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,a\,(5\,A+7\,C)\,\mathrm{Sin}[c+d\,x]}{21\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(3\,A+5\,C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{7\,d\,\mathrm{Cos}[c+d\,x]^{7/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d x]}\,(1+\text{Cos}[c+d x])\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\left(\frac{2\,(3 A+5 C)\,\text{Csc}[2 c]}{5 d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d x]^4\,\text{Sin}[d x]}{7 d}+\right.\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d x]^3\,(5 A\,\text{Sin}[c]+7 A\,\text{Sin}[d x])}{35 d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d x]^2\,(21 A\,\text{Sin}[c]+25 A\,\text{Sin}[d x]+35 C\,\text{Sin}[d x])}{105 d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d x]\,(25 A\,\text{Sin}[c]+35 C\,\text{Sin}[c]+63 A\,\text{Sin}[d x]+105 C\,\text{Sin}[d x])}{105 d}\right)-$$

$$\frac{1}{21 d\sqrt{1+\text{Cot}[c]^2}}\,5 A\,(1+\text{Cos}[c+d x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\,\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3 d\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10 d}\,3 A\,(1+\text{Cos}[c+d x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2 d}\,C\,(1+\text{Cos}[c+d x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d x]^{3/2}\,(a+a\,\text{Cos}[c+d x])^2\,\left(A+C\,\text{Cos}[c+d x]^2\right),\,x,\,8,\,0\right\}$$

$$\frac{4 a^2 (9 A + 7 C) \text{EllipticE}\left[\frac{1}{2} (c + d x), 2\right]}{15 d} + \frac{8 a^2 (33 A + 25 C) \text{EllipticF}\left[\frac{1}{2} (c + d x), 2\right]}{231 d} + \frac{8 a^2 (33 A + 25 C) \sqrt{\text{Cos}[c + d x]} \text{Sin}[c + d x]}{231 d} + \frac{4 a^2 (9 A + 7 C) \text{Cos}[c + d x]^{3/2} \text{Sin}[c + d x]}{45 d} + \frac{2 a^2 (99 A + 89 C) \text{Cos}[c + d x]^{5/2} \text{Sin}[c + d x]}{693 d} + \frac{8 a C \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x]) \text{Sin}[c + d x]}{99 d} + \frac{2 C \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x])^2 \text{Sin}[c + d x]}{11 d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(9\,A+7\,C)\,\text{Cot}[c]}{15\,d}+\frac{(1122\,A+941\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3696\,d}+\frac{(18\,A+19\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{180\,d}+\right.$$

$$\frac{(44\,A+101\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{2464\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{72\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{352\,d}+\frac{(1122\,A+941\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3696\,d}+$$

$$\left.\frac{(18\,A+19\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{180\,d}+\frac{(44\,A+101\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{2464\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{72\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{352\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{231\,d\,\sqrt{1+\text{Cot}[c]^2}}\,50\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-\frac{1}{10\,d}\,3\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,7,\,0\right\}$$

$$\frac{16 a^2 (3 A+2 C) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{15 d}+\frac{4 a^2 (7 A+5 C) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+$$

$$\frac{4 a^2 (7 A+5 C) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{21 d}+\frac{2 a^2 (21 A+19 C) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{105 d}+$$

$$\frac{8 a C \text{Cos}[c+d x]^{3/2} (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{63 d}+\frac{2 C \text{Cos}[c+d x]^{3/2} (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{9 d}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(-\frac{4 (3 A+2 C) \text{Cot}[c]}{15 d}+\right.$$

$$\frac{(28 A+23 C) \text{Cos}[d x] \text{Sin}[c]}{84 d}+\frac{(18 A+37 C) \text{Cos}[2 d x] \text{Sin}[2 c]}{360 d}+\frac{C \text{Cos}[3 d x] \text{Sin}[3 c]}{28 d}+\frac{C \text{Cos}[4 d x] \text{Sin}[4 c]}{144 d}+$$

$$\left.\frac{(28 A+23 C) \text{Cos}[c] \text{Sin}[d x]}{84 d}+\frac{(18 A+37 C) \text{Cos}[2 c] \text{Sin}[2 d x]}{360 d}+\frac{C \text{Cos}[3 c] \text{Sin}[3 d x]}{28 d}+\frac{C \text{Cos}[4 c] \text{Sin}[4 d x]}{144 d}\right)-$$

$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{21 d \sqrt{1+\text{Cot}[c]^2}} 5 C (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{5 d} 2 A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{15 d} 4 C (a+a \text{Cos}[c+d x])^2 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{4\,a^2\,(5\,A+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{8\,a^2\,(7\,A+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+\frac{2\,a^2\,(35\,A+33\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d}+\frac{8\,a\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(5\,A+3\,C)\,\text{Cot}[c]}{5\,d}+\frac{(28\,A+51\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{168\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{56\,d}+\right.$$

$$\left.\frac{(28\,A+51\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{168\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{56\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,6,\,0\right\}$$

$$\frac{16 a^2 C \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{5 d}+\frac{4 a^2 (3 A+C) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 d}-\frac{2 a^2 (15 A-7 C) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{15 d}-$$

$$\frac{2 a (5 A-C) \sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{5 d}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{d \sqrt{\text{Cos}[c+d x]}}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(-\frac{(-5 A+8 C+5 A \text{Cos}[2 c]+8 C \text{Cos}[2 c]) \text{Csc}[2 c]}{10 d}+\frac{C \text{Cos}[d x] \text{Sin}[c]}{3 d}+\right.$$

$$\left.\frac{C \text{Cos}[2 d x] \text{Sin}[2 c]}{20 d}+\frac{C \text{Cos}[c] \text{Sin}[d x]}{3 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x] \text{Sin}[d x]}{2 d}+\frac{C \text{Cos}[2 c] \text{Sin}[2 d x]}{20 d}\right)-$$

$$\frac{1}{d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} C (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{5 d} 2 C (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2 \left(A+C \text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{5/2}}, x, 6, 0\right\}$$

$$-\frac{4 a^2 (A-C) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{d}+\frac{8 a^2 (A+C) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 d}-$$

$$\frac{2 a^2 (5 A-C) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 d}+\frac{8 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{3 d \sqrt{\text{Cos}[c+d x]}}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{3 d \text{Cos}[c+d x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-\frac{(-2\,A+C+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{6\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+6\,A\,\text{Sin}[d\,x])}{6\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{2\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{16 a^2 A \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{5 d}+\frac{4 a^2 (A+3 C) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 d}+$$
$$\frac{2 a^2 (17 A+15 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Cos}[c+d x]}}+\frac{8 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{15 d \text{Cos}[c+d x]^{3/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{5 d \text{Cos}[c+d x]^{5/2}}$$
$$\sqrt{\text{Cos}[c+d x]}\,(a+a \text{Cos}[c+d x])^2 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \left(-\frac{(-16 A-5 C+5 C \text{Cos}[2 c]) \text{Csc}[2 c]}{10 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x]^3 \text{Sin}[d x]}{10 d}+\right.$$
$$\left.\frac{\text{Sec}[c] \text{Sec}[c+d x]^2 (3 A \text{Sin}[c]+10 A \text{Sin}[d x])}{30 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x] (10 A \text{Sin}[c]+24 A \text{Sin}[d x]+15 C \text{Sin}[d x])}{30 d}\right)-$$
$$\frac{1}{3 d \sqrt{1+\text{Cot}[c]^2}} A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$
$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$
$$\frac{1}{d \sqrt{1+\text{Cot}[c]^2}} C (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$
$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{5 d} 2 A (a+a \text{Cos}[c+d x])^2 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^4$$
$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$
$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$
$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^2 \left(A+C \text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{9/2}}, x, 7, 0\right\}$$
$$-\frac{4 a^2 (3 A+5 C) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{5 d}+\frac{8 a^2 (3 A+7 C) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{21 d}+\frac{2 a^2 (33 A+35 C) \text{Sin}[c+d x]}{105 d \text{Cos}[c+d x]^{3/2}}+$$
$$\frac{4 a^2 (3 A+5 C) \text{Sin}[c+d x]}{5 d \sqrt{\text{Cos}[c+d x]}}+\frac{8 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d \text{Cos}[c+d x]^{5/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d \text{Cos}[c+d x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\frac{2\,(3\,A+5\,C)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{14\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,A\,\text{Sin}[c]+14\,A\,\text{Sin}[d\,x])}{70\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(42\,A\,\text{Sin}[c]+60\,A\,\text{Sin}[d\,x]+35\,C\,\text{Sin}[d\,x])}{210\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(60\,A\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+126\,A\,\text{Sin}[d\,x]+210\,C\,\text{Sin}[d\,x])}{210\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\,x,\,8,\,0\right\}$$

$$-\frac{16 a^2 (2 A+3 C) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{15 d}+\frac{4 a^2 (5 A+7 C) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+$$
$$\frac{2 a^2 (19 A+21 C) \text{Sin}[c+d x]}{105 d \text{Cos}[c+d x]^{5/2}}+\frac{4 a^2 (5 A+7 C) \text{Sin}[c+d x]}{21 d \text{Cos}[c+d x]^{3/2}}+\frac{16 a^2 (2 A+3 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Cos}[c+d x]}}+$$
$$\frac{8 a A (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{63 d \text{Cos}[c+d x]^{7/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{9 d \text{Cos}[c+d x]^{9/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\frac{8\,(2\,A+3\,C)\,\text{Csc}[2\,c]}{15\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,\text{Sin}[d\,x]}{18\,d}+\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(7\,A\,\text{Sin}[c]+18\,A\,\text{Sin}[d\,x])}{126\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(90\,A\,\text{Sin}[c]+112\,A\,\text{Sin}[d\,x]+63\,C\,\text{Sin}[d\,x])}{630\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(25\,A\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+56\,A\,\text{Sin}[d\,x]+84\,C\,\text{Sin}[d\,x])}{105\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(112\,A\,\text{Sin}[c]+63\,C\,\text{Sin}[c]+150\,A\,\text{Sin}[d\,x]+210\,C\,\text{Sin}[d\,x])}{630\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{15\,d}\,4\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{5\,d}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,9,\,0\right\}$$

$$\frac{4 a^3 (221 A + 175 C) \text{EllipticE}\left[\frac{1}{2} (c + d x), 2\right]}{195 d} + \frac{4 a^3 (121 A + 95 C) \text{EllipticF}\left[\frac{1}{2} (c + d x), 2\right]}{231 d} + \frac{4 a^3 (121 A + 95 C) \sqrt{\text{Cos}[c + d x]} \text{Sin}[c + d x]}{231 d} + \frac{4 a^3 (221 A + 175 C) \text{Cos}[c + d x]^{3/2} \text{Sin}[c + d x]}{585 d} + \frac{40 a^3 (143 A + 118 C) \text{Cos}[c + d x]^{5/2} \text{Sin}[c + d x]}{9009 d} + \frac{2 a^2 (143 A + 145 C) \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x]) \text{Sin}[c + d x]}{1287 d} + \frac{12 a C \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x])^2 \text{Sin}[c + d x]}{143 d} + \frac{2 C \text{Cos}[c + d x]^{5/2} (a + a \text{Cos}[c + d x])^3 \text{Sin}[c + d x]}{13 d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(221\,A+175\,C)\,\text{Cot}[c]}{390\,d}+\frac{(2134\,A+1811\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{7392\,d}+\frac{(7592\,A+7825\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{74\,880\,d}+\right.$$

$$\frac{(132\,A+215\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{4928\,d}+\frac{(13\,A+59\,C)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{3744\,d}+\frac{3\,C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{704\,d}+$$

$$\frac{C\,\text{Cos}[6\,d\,x]\,\text{Sin}[6\,c]}{1664\,d}+\frac{(2134\,A+1811\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{7392\,d}+\frac{(7592\,A+7825\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{74\,880\,d}+$$

$$\left.\frac{(132\,A+215\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{4928\,d}+\frac{(13\,A+59\,C)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{3744\,d}+\frac{3\,C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{704\,d}+\frac{C\,\text{Cos}[6\,c]\,\text{Sin}[6\,d\,x]}{1664\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{462\,d\,\sqrt{1+\text{Cot}[c]^2}}\,95\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{60\,d}\,17\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{156\,d}\,35\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[$$

$$c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\left(A+C\,\text{Cos}[c+d\,x]^2\right),\ x,\ 8,\ 0\right\}$$

$$\frac{4\,a^3\,(7\,A+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^3\,(143\,A+105\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{231\,d}+$$

$$\frac{4\,a^3\,(143\,A+105\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+\frac{8\,a^3\,(44\,A+35\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{385\,d}+$$

$$\frac{2\,a^2\,(33\,A+35\,C)\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{231\,d}+$$

$$\frac{4\,a\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{33\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{11\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(7\,A+5\,C)\,\text{Cot}[c]}{10\,d}+\frac{(2354\,A+1953\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{7392\,d}+\frac{(18\,A+25\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{240\,d}+\right.$$

$$\frac{(44\,A+189\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{4928\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{96\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{704\,d}+\frac{(2354\,A+1953\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{7392\,d}+$$

$$\left.\frac{(18\,A+25\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{240\,d}+\frac{(44\,A+189\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{4928\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{96\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{704\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{22\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\;\frac{1}{20\,d}\,7\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{4\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{4 a^3 (27 A + 17 C) \text{EllipticE}\left[\frac{1}{2} (c + d x), 2\right]}{15 d} + \frac{4 a^3 (21 A + 11 C) \text{EllipticF}\left[\frac{1}{2} (c + d x), 2\right]}{21 d} + \frac{8 a^3 (21 A + 16 C) \sqrt{\text{Cos}[c + d x]} \text{Sin}[c + d x]}{105 d} + \frac{2 a^2 (63 A + 73 C) \sqrt{\text{Cos}[c + d x]} (a + a \text{Cos}[c + d x]) \text{Sin}[c + d x]}{315 d} + \frac{4 a C \sqrt{\text{Cos}[c + d x]} (a + a \text{Cos}[c + d x])^2 \text{Sin}[c + d x]}{21 d} + \frac{2 C \sqrt{\text{Cos}[c + d x]} (a + a \text{Cos}[c + d x])^3 \text{Sin}[c + d x]}{9 d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(27\,A+17\,C)\,\text{Cot}[c]}{30\,d}+\frac{(84\,A+97\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{(18\,A+73\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\right.$$

$$\frac{3\,C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\frac{(84\,A+97\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+$$

$$\left.\frac{(18\,A+73\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+\frac{3\,C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{20\,d}\,9\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{60\,d}\,17\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{4 a^3 (5 A + 7 C) \text{EllipticE}\left[\frac{1}{2} (c + d x), 2\right]}{5 d} + \frac{4 a^3 (35 A + 13 C) \text{EllipticF}\left[\frac{1}{2} (c + d x), 2\right]}{21 d} - \frac{4 a^3 (35 A - 41 C) \sqrt{\text{Cos}[c + d x]} \text{Sin}[c + d x]}{105 d} - \frac{2 a^2 (35 A - 11 C) \sqrt{\text{Cos}[c + d x]} (a + a \text{Cos}[c + d x]) \text{Sin}[c + d x]}{35 d} - \frac{2 a (7 A - C) \sqrt{\text{Cos}[c + d x]} (a + a \text{Cos}[c + d x])^2 \text{Sin}[c + d x]}{7 d} + \frac{2 A (a + a \text{Cos}[c + d x])^3 \text{Sin}[c + d x]}{d \sqrt{\text{Cos}[c + d x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(5\,A+14\,C+15\,A\,\text{Cos}[2\,c]+14\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{(28\,A+107\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{3\,C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{40\,d}+\right.$$

$$\frac{C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{(28\,A+107\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{4\,d}+$$

$$\left.\frac{3\,C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{40\,d}+\frac{C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}\right)-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{4\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{20\,d}\,7\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4 a^3 (5 A-9 C) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+\frac{4 a^3 (5 A+3 C) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{3 d}-$$

$$\frac{8 a^3 (10 A-3 C) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{15 d}-\frac{2 a^2 (35 A-3 C) \sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{15 d}+$$

$$\frac{4 a A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{d \sqrt{\text{Cos}[c+d x]}}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sin}[c+d x]}{3 d \text{Cos}[c+d x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d x]} (a+a \text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(-\frac{(-25 A+18 C+5 A \text{Cos}[2 c]+18 C \text{Cos}[2 c]) \text{Csc}[2 c]}{20 d}+\frac{C \text{Cos}[d x] \text{Sin}[c]}{4 d}+\frac{C \text{Cos}[2 d x] \text{Sin}[2 c]}{40 d}+\frac{C \text{Cos}[c] \text{Sin}[d x]}{4 d}+\right.$$

$$\left.\frac{A \text{Sec}[c] \text{Sec}[c+d x]^2 \text{Sin}[d x]}{12 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x] (A \text{Sin}[c]+9 A \text{Sin}[d x])}{12 d}+\frac{C \text{Cos}[2 c] \text{Sin}[2 d x]}{40 d}\right)-$$

$$\frac{1}{6 d \sqrt{1+\text{Cot}[c]^2}} 5 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{2 d \sqrt{1+\text{Cot}[c]^2}} C (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2} \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{4 d} A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{20 d} 9 C (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{4\,a^3\,(9\,A-5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^3\,(3\,A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}-$$

$$\frac{4\,a^3\,(21\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a^2\,(11\,A+5\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,a\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(-36\,A+5\,C+15\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{12\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{12\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{20\,d}+\right.$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(A\,\text{Sin}[c]+5\,A\,\text{Sin}[d\,x])}{20\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,A\,\text{Sin}[c]+18\,A\,\text{Sin}[d\,x]+5\,C\,\text{Sin}[d\,x])}{20\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,+\frac{1}{20\,d}\,9\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{4\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4 a^3 (7 A+5 C) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+\frac{4 a^3 (13 A+35 C) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 d}+\frac{8 a^3 (53 A+70 C) \text{Sin}[c+d x]}{105 d \sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{2 a^2 (7 A+5 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{15 d \text{Cos}[c+d x]^{3/2}}+\frac{12 a A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{35 d \text{Cos}[c+d x]^{5/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sin}[c+d x]}{7 d \text{Cos}[c+d x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\ (a+a \text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(-\frac{(-28 A-25 C+5 C \text{Cos}[2 c]) \text{Csc}[2 c]}{20 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x]^4 \text{Sin}[d x]}{28 d}+\right.$$

$$\frac{\text{Sec}[c] \text{Sec}[c+d x]^3 (5 A \text{Sin}[c]+21 A \text{Sin}[d x])}{140 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x]^2 (63 A \text{Sin}[c]+130 A \text{Sin}[d x]+35 C \text{Sin}[d x])}{420 d}+$$

$$\left.\frac{\text{Sec}[c] \text{Sec}[c+d x] (130 A \text{Sin}[c]+35 C \text{Sin}[c]+294 A \text{Sin}[d x]+315 C \text{Sin}[d x])}{420 d}\right)-$$

$$\frac{1}{42 d \sqrt{1+\text{Cot}[c]^2}} 13 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4}, \frac{1}{2}\right\}, \left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{6 d \sqrt{1+\text{Cot}[c]^2}} 5 C (a+a \text{Cos}[c+d x])^3 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4}, \frac{1}{2}\right\}, \left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\ \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\ \sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{20 d} 7 A (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2}, -\frac{1}{4}\right\}, \left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{4 d} C (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2}, -\frac{1}{4}\right\}, \left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\ \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{4\,a^3\,(17\,A+27\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{15\,d}+\frac{4\,a^3\,(11\,A+21\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+$$

$$\frac{8\,a^3\,(16\,A+21\,C)\,\mathrm{Sin}[c+d\,x]}{105\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(17\,A+27\,C)\,\mathrm{Sin}[c+d\,x]}{15\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+\frac{2\,a^2\,(73\,A+63\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{315\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{4\,a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sin}[c+d\,x]}{21\,d\,\mathrm{Cos}[c+d\,x]^{7/2}}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sin}[c+d\,x]}{9\,d\,\mathrm{Cos}[c+d\,x]^{9/2}}$$

$$\sqrt{\text{Cos}[c+d x]}\,(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(\frac{(17 A+27 C)\,\text{Csc}[2 c]}{15 d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d x]^5\,\text{Sin}[d x]}{36 d}+\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d x]^4\,(7 A\,\text{Sin}[c]+27 A\,\text{Sin}[d x])}{252 d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d x]^3\,(135 A\,\text{Sin}[c]+238 A\,\text{Sin}[d x]+63 C\,\text{Sin}[d x])}{1260 d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d x]^2\,(238 A\,\text{Sin}[c]+63 C\,\text{Sin}[c]+330 A\,\text{Sin}[d x]+315 C\,\text{Sin}[d x])}{1260 d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d x]\,(110 A\,\text{Sin}[c]+105 C\,\text{Sin}[c]+238 A\,\text{Sin}[d x]+378 C\,\text{Sin}[d x])}{420 d}\right)-$$

$$\frac{1}{42 d\sqrt{1+\text{Cot}[c]^2}}\,11 A\,(a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\,\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{2 d\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{60 d}\,17 A\,(a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20 d}\,9 C\,(a+a\,\text{Cos}[c+d x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d x])^3\,\left(A+C\,\text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{13/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{4 a^3 (5 A+7 C) \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 d}+\frac{4 a^3 (105 A+143 C) \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{231 d}+$$
$$\frac{8 a^3 (35 A+44 C) \text{Sin}[c+d x]}{385 d \text{Cos}[c+d x]^{5/2}}+\frac{4 a^3 (105 A+143 C) \text{Sin}[c+d x]}{231 d \text{Cos}[c+d x]^{3/2}}+\frac{4 a^3 (5 A+7 C) \text{Sin}[c+d x]}{5 d \sqrt{\text{Cos}[c+d x]}}+$$
$$\frac{2 a^2 (35 A+33 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{231 d \text{Cos}[c+d x]^{7/2}}+\frac{4 a A (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{33 d \text{Cos}[c+d x]^{9/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sin}[c+d x]}{11 d \text{Cos}[c+d x]^{11/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\frac{(5\,A+7\,C)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^6\,\text{Sin}[d\,x]}{44\,d}+\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,(3\,A\,\text{Sin}[c]+11\,A\,\text{Sin}[d\,x])}{132\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(77\,A\,\text{Sin}[c]+126\,A\,\text{Sin}[d\,x]+33\,C\,\text{Sin}[d\,x])}{924\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(630\,A\,\text{Sin}[c]+165\,C\,\text{Sin}[c]+770\,A\,\text{Sin}[d\,x]+693\,C\,\text{Sin}[d\,x])}{4620\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(770\,A\,\text{Sin}[c]+693\,C\,\text{Sin}[c]+1050\,A\,\text{Sin}[d\,x]+1430\,C\,\text{Sin}[d\,x])}{4620\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(525\,A\,\text{Sin}[c]+715\,C\,\text{Sin}[c]+1155\,A\,\text{Sin}[d\,x]+1617\,C\,\text{Sin}[d\,x])}{2310\,d}\right)-$$

$$\frac{1}{22\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{4\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20\,d}\,7\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,(5\,A+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a\,d}+\frac{5\,(7\,A+9\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,a\,d}+\frac{5\,(7\,A+9\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,a\,d}-$$

$$\frac{(5\,A+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}+\frac{(7\,A+9\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,a\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(\frac{2\,(5\,A+5\,C+10\,A\,\mathrm{Cos}[c]+16\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{(28\,A+51\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{21\,d}-\right.$$

$$\frac{2\,C\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}+\frac{C\,\mathrm{Cos}[3\,d\,x]\,\mathrm{Sin}[3\,c]}{7\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+$$

$$\left.\frac{(28\,A+51\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{21\,d}-\frac{2\,C\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+\frac{C\,\mathrm{Cos}[3\,c]\,\mathrm{Sin}[3\,d\,x]}{7\,d}\right)-$$

$$\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(30\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(7\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\mathrm{Csc}[c]\,\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$\frac{3\,(5\,A+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a\,d}-\frac{(3\,A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}-\frac{(3\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{(5\,A+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{2\,(5\,A+5\,C+10\,A\,\mathrm{Cos}[c]+16\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,C\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\frac{4\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}\right)+$$

$$\left(2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(10\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$-\frac{(A+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a\,d}+\frac{(3\,A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}+$$

$$\frac{(3\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \sqrt{\text{Cos}[c+d x]}\left(\frac{2 (A+C+2 C \text{Cos}[c]) \text{Csc}[c]}{d}+\frac{4 C \text{Cos}[d x] \text{Sin}[c]}{3 d}+\frac{2 \text{Sec}\left[\frac{c}{2}\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]\left(A \text{Sin}\left[\frac{d x}{2}\right]+C \text{Sin}\left[\frac{d x}{2}\right]\right)}{d}+\frac{4 C \text{Cos}[c] \text{Sin}[d x]}{3 d}\right)}{a+a \text{Cos}[c+d x]}-$$

$$\left(2 A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]] \sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2}\, \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/ \left(d (a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(10 C \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c] \text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\}, \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]^2\right] \text{Sec}[d x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \sqrt{-\sqrt{1+\text{Cot}[c]^2}\, \text{Sin}[c] \text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]} \left.\sqrt{1+\text{Sin}[d x-\text{ArcTan}[\text{Cot}[c]]]}\right) \Big/$$

$$\left(3 d (a+a \text{Cos}[c+d x]) \sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d (a+a \text{Cos}[c+d x])} A \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2 \text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{d (a+a \text{Cos}[c+d x])} 3 C \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\}, \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]^2\right] \text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]\right) \Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{1+\text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]]} \sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d x+\text{ArcTan}[\text{Tan}[c]]] \text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2 \text{Cos}[c]^2 \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c] \text{Cos}[d x+\text{ArcTan}[\text{Tan}[c]]] \sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C \text{Cos}[c+d x]^2}{\sqrt{\text{Cos}[c+d x]}\,(a+a \text{Cos}[c+d x])}, x, 4, 0\right\}$$

$$\frac{(A+3 C) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{a d}+\frac{(A-C) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{a d}-\frac{(A+C) \sqrt{\text{Cos}[c+d x]}\, \text{Sin}[c+d x]}{d (a+a \text{Cos}[c+d x])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2 \sqrt{\text{Cos}[c+d\,x]}\left(-\frac{2\,(A+C+2\,C\,\text{Cos}[c])\,\text{Csc}[c]}{d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}\right)}{a+a\,\text{Cos}[c+d\,x]}-$$

$$\left(2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{1+\text{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])}3\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])},\,x,\,5,\,0\right\}$$

$$-\frac{(3A+C)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}-\frac{(A-C)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}+$$

$$\frac{(3A+C)\,\text{Sin}[c+dx]}{a\,d\sqrt{\text{Cos}[c+dx]}}-\frac{(A+C)\,\text{Sin}[c+dx]}{d\sqrt{\text{Cos}[c+dx]}\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\sqrt{\text{Cos}[c+dx]}\left(\frac{2(3A+C)}{d(-\text{Sin}[c]+\text{Sin}[2c])}-\frac{2\,\text{Sec}\left[\frac{3c}{2}\right]\left(-3A\,\text{Sin}\left[\frac{3dx}{2}\right]-C\,\text{Sin}\left[\frac{3dx}{2}\right]+2A\,\text{Sin}\left[c-\frac{dx}{2}\right]+A\,\text{Sin}\left[2c+\frac{dx}{2}\right]+C\,\text{Sin}\left[2c+\frac{dx}{2}\right]\right)}{d\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Cos}\left[\frac{3c}{2}+\frac{3dx}{2}\right]\right)}\right)}{a+a\,\text{Cos}[c+dx]}+$$

$$\left(2A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(2C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+dx])}3A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[dx+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[dx+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+dx])}C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[dx+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{\text{Cos}[c]\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[dx+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])},\ x,\ 6,\ 0\right\}$$

$$\frac{(3\,A+C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a\,d}+\frac{(5\,A+3\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}+\frac{(5\,A+3\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-\frac{(3\,A+C)\,\mathrm{Sin}[c+d\,x]}{a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{(2\,A+A\,\mathrm{Cos}[c]+C\,\mathrm{Cos}[c])\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\right.$$

$$\left.\frac{4\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(A\,\mathrm{Sin}[c]-3\,A\,\mathrm{Sin}[d\,x])}{3\,d}\right)-$$

$$\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(2\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{7/2}\,(a+a\,\mathrm{Cos}[c+d\,x])},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,(7\,A+5\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a\,d}-\frac{(5\,A+3\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}+\frac{(7\,A+5\,C)\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}-\frac{(5\,A+3\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{3\,(7\,A+5\,C)\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{d\,\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{(16\,A+10\,C+5\,A\,\mathrm{Cos}[c]+5\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\right.$$

$$\frac{4\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Sin}[d\,x]}{5\,d}+\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,(3\,A\,\mathrm{Sin}[c]-5\,A\,\mathrm{Sin}[d\,x])}{15\,d}-$$

$$\left.\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(5\,A\,\mathrm{Sin}[c]-24\,A\,\mathrm{Sin}[d\,x]-15\,C\,\mathrm{Sin}[d\,x])}{15\,d}\right)+$$

$$\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(2\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$\frac{4\,(5\,A+14\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a^2\,d}-\frac{5\,(A+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}-\frac{5\,(A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+$$

$$\frac{4\,(5\,A+14\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a^2\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A+3\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(20\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(-\frac{8\,(5\,A+10\,C+5\,A\,\text{Cos}[c]+18\,C\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}-\frac{16\,C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{4\,C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{5\,d}+\right.$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{8\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+2\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\frac{16\,C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+$$

$$\left.\frac{4\,C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{5\,d}+\frac{2\,(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}8\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\;\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^2}112\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\Bigg(\Bigg(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Bigg)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{(A+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{2\,(A+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+$$

$$\frac{2\,(A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(40\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(A+3\,C+4\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}+\frac{8\,C\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\right.$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{8\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$\frac{4\,C\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^2\,d}+\frac{(A-5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}-$$

$$\frac{(A+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(A-5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\sqrt{\text{Cos}[c+d\,x]}\,\left(-\frac{8\,C\,\text{Cot}\left[\frac{c}{2}\right]}{d}-\frac{8\,C\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{2\,(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)}{(a+a\,\text{Cos}[c+d\,x])^2}-$$

$$\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}$$

$$8\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$\frac{(A-C)\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]}{a^2\,d}+\frac{2\,(A+C)\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]}{3\,a^2\,d}-\frac{(A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(8\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(A-C)\,\mathrm{Csc}[c]}{d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$

$$\left.\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$-\frac{4\,A\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^2\,d}-\frac{(5\,A-C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}+$$

$$\frac{4\,A\,\mathrm{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(5\,A-C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(20\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{16\,A}{d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$

$$\left.\frac{8\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-2\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$\frac{(7A+C)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a^2 d}+\frac{2(5A+C)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3a^2 d}+\frac{2(5A+C)\,\text{Sin}[c+dx]}{3a^2 d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{(7A+C)\,\text{Sin}[c+dx]}{a^2 d\sqrt{\text{Cos}[c+dx]}}-\frac{(A+C)\,\text{Sin}[c+dx]}{3d\,\text{Cos}[c+dx]^{3/2}(a+a\,\text{Cos}[c+dx])^2}-\frac{(7A+C)\,\text{Sin}[c+dx]}{3ad\,\text{Cos}[c+dx]^{3/2}(a+a\,\text{Cos}[c+dx])}$$

$$-\left(40A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3d(a+a\,\text{Cos}[c+dx])^2\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(8C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3d(a+a\,\text{Cos}[c+dx])^2\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+dx])^2}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\sqrt{\text{Cos}[c+dx]}\left(\frac{2(4A-27A\,\text{Cos}[c]-3C\,\text{Cos}[c]+2A\,\text{Cos}[2c])\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{3d\left(-2\,\text{Sin}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{3c}{2}\right]\right)}+\right.$$

$$\frac{8A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Sin}\left[\frac{dx}{2}\right]}{3d}-\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(A\,\text{Sin}\left[\frac{dx}{2}\right]+C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{3d}+\frac{8A\,\text{Sec}[c]\,\text{Sec}[c+dx]^2\,\text{Sin}[dx]}{3d}+$$

$$\left(4\,\text{Sec}\left[\frac{3c}{2}\right]\left(-2A\,\text{Sin}\left[\frac{dx}{2}\right]-2C\,\text{Sin}\left[\frac{dx}{2}\right]-21A\,\text{Sin}\left[\frac{3dx}{2}\right]-3C\,\text{Sin}\left[\frac{3dx}{2}\right]+9A\,\text{Sin}\left[c-\frac{dx}{2}\right]-C\,\text{Sin}\left[c-\frac{dx}{2}\right]+2A\,\text{Sin}\left[\right.\right.\right.$$

$$\left.\left.\left.c+\frac{dx}{2}\right]+2C\,\text{Sin}\left[c+\frac{dx}{2}\right]+10A\,\text{Sin}\left[2c+\frac{dx}{2}\right]+2C\,\text{Sin}\left[2c+\frac{dx}{2}\right]\right)\right)\Big/\left(3d\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Cos}\left[\frac{3c}{2}+\frac{3dx}{2}\right]\right)\right)+$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+dx]\left(A\,\text{Sin}\left[\frac{c}{2}\right]-C\,\text{Sin}\left[\frac{c}{2}\right]+3A\,\text{Sin}\left[\frac{3c}{2}\right]+C\,\text{Sin}\left[\frac{3c}{2}\right]+2A\,\text{Sin}\left[\frac{c}{2}-dx\right]-2A\,\text{Sin}\left[\frac{c}{2}+dx\right]\right)}{3d}-$$

$$\left.\frac{2(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3d}\right)-\frac{1}{d(a+a\,\text{Cos}[c+dx])^2}14A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[dx+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[dx+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left(\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{7\,(7\,A+33\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}-\frac{(13\,A+63\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-$$

$$\frac{(13\,A+63\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,a^3\,d}+\frac{7\,(7\,A+33\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^3\,d}-$$

$$\frac{(A+C)\,\text{Cos}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{2\,(A+6\,C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(13\,A+63\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(52\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\Bigg(84\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}$$

$$\Bigg(-\frac{4\,(29\,A+99\,C+20\,A\,\text{Cos}[c]+132\,C\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}-\frac{16\,C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{d}+\frac{8\,C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{5\,d}-$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{8\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(7\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+12\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(29\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+99\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{16\,C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{d}+\frac{8\,C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{5\,d}+$$

$$\frac{8\,(7\,A+12\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\Bigg)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}98\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Bigg/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}462\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$-\frac{(9\,A+119\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(A+11\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}+\frac{(A+11\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a^3\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(9\,A+119\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(44\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(9\,A+59\,C+60\,C\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+\frac{16\,C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+19\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+59\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$

$$\frac{16\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-\frac{4\,(9\,A+19\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\Bigg)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\Bigg(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}$$

$$\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\Bigg)-$$

$$\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\Bigg)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\Bigg(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}$$

$$\sqrt{1+\mathrm{Tan}[c]^2}\Bigg)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$-\frac{(A-49\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(A-13\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-$$

$$\frac{(A+C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{2\,(A-4\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{(A-13\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(52\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(-\frac{4\,(-A+29\,C+20\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-29\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(2\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+7\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\left.\frac{8\,(2\,A+7\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\,\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\,\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$\frac{(A-9\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(A+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{2\,(2\,A-3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-9\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(A-9\,C)\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-9\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-9\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,(A-9\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{(9\,A-C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(3\,A+C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}-\frac{(A+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,(3\,A-2\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(9\,A-C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(9\,A-C)\,\mathrm{Csc}[c]}{5\,d}-\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(3\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-2\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{8\,(3\,A-2\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{(49\,A-C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}-\frac{(13\,A-C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+\frac{(49\,A-C)\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,(4\,A-C)\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-C)\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\left(52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(\frac{4\,(49\,A-C)}{5\,d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-49\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+20\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+29\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{5\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\left.\frac{4\,(11\,A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)+\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\ -\frac{1}{4}\right\},\ \left\{\frac{3}{4}\right\},\ \mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left(\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{(119\,A+9\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(11\,A+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{2\,a^3\,d}+$$

$$\frac{(11\,A+C)\,\text{Sin}[c+d\,x]}{2\,a^3\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{(119\,A+9\,C)\,\text{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3}-$$

$$\frac{2\,A\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(119\,A+9\,C)\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(44\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(4\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}$$

$$\Bigg(\frac{2\,(40\,A-417\,A\,\text{Cos}[c]-27\,C\,\text{Cos}[c]+20\,A\,\text{Cos}[2\,c])\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{15\,d\left(-2\,\text{Sin}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{3\,c}{2}\right]\right)}+\frac{16\,A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\frac{8\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{16\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+\Bigg(4\,\text{Sec}\left[\frac{3\,c}{2}\right]\Bigg(-64\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-24\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-357\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-$$

$$27\,C\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+128\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-12\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+64\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+24\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$165\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+15\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\Bigg)\Bigg)\Big/\left(15\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)\right)+$$

$$\frac{8\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\left(-3\,A\,\text{Sin}\left[\frac{c}{2}\right]-3\,C\,\text{Sin}\left[\frac{c}{2}\right]+13\,A\,\text{Sin}\left[\frac{3\,c}{2}\right]+3\,C\,\text{Sin}\left[\frac{3\,c}{2}\right]+5\,A\,\text{Sin}\left[\frac{c}{2}-d\,x\right]-5\,A\,\text{Sin}\left[\frac{c}{2}+d\,x\right]\right)}{15\,d}-$$

$$\frac{8\,(8\,A+3\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\Bigg)-$$

$$\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}238\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]$$

$$\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}18\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Csc}[c]\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,5,\,0\right\}$$

$$\frac{\sqrt{a}\,(48\,A+35\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+\frac{a\,(48\,A+35\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,(48\,A+35\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{C\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{384\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-3\,i\,(48\,A+35\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$

$$3\,i\,(48\,A+35\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$144\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$105\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$192\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+160\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+96\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$78\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+16\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,4,\,0\right\}$$

$$\frac{\sqrt{a}\,(8A+5C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{8d}+\frac{a\,(8A+5C)\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{8d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+$$

$$\frac{a\,C\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{12d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{C\,\text{Cos}[c+dx]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3d}$$

$$\frac{1}{48\sqrt{2}\,d\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(-3i\,(8A+5C)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]+$$

$$3i\,(8A+5C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$

$$24A\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$15C\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$48\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+$$

$$28\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+6\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{3}{2}(c+dx)\right]+4\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{5}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+dx]}\,\left(A+C\,\text{Cos}[c+dx]^2\right)}{\sqrt{\text{Cos}[c+dx]}},\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{a}\,(8A+3C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{4d}+$$

$$\frac{a\,C\,\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d\,\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{C\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2d}$$

$$\frac{1}{8d\,\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}}\sqrt{\text{Cos}[c+dx]}\,\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(-i\,(8A+3C)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]+$$

$$i\,(8A+3C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$

$$8A\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$3C\,\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+4\sqrt{2}\,C$$

$$\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+2\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+dx]}\,\left(A+C\,\text{Cos}[c+dx]^2\right)}{\text{Cos}[c+dx]^{3/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{a}\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a\,(2\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-i\,C\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-\right.$$

$$i\,C\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$

$$2\,i\,C\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$C\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$8\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$\left.C\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,3,\,0\right\}$$

$$\frac{2\,\sqrt{a}\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,a\,A\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{1}{6\,\sqrt{2}\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,i\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

$$\left(6\,C\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\text{Cos}[c+d\,x]^2-3\,C\,\text{Cos}[2\,(c+d\,x)]\right.$$

$$\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

$$\left(3\,C\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+\right.$$

$$3\,i\,C\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$\left.\left.4\,i\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,6,\,0\right\}$$

$$\frac{a^{3/2}\,(176\,A+133\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{128\,d}+\frac{a^2\,(176\,A+133\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(176\,A+133\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{192\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(80\,A+67\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{240\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{3\,a\,C\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{40\,d}+\frac{C\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{3840\,\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-15\,i\,(176\,A+133\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$

$$15\,i\,(176\,A+133\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$2640\,A\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$1995\,C\,\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$4160\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$3328\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$1440\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+1290\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+320\,\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+$$

$$496\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+180\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+48\,\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right),\ x,\ 5,\ 0\right\}$$

$$\frac{a^{3/2}\,(112\,A+75\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+$$

$$\frac{a^2\,(112\,A+75\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(16\,A+13\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{32\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,C\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{8\,d}+\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{128\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]$$
$$\left(-i\,(112\,A+75\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$i\,(112\,A+75\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$112\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$75\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$192\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+128\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+32\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+$$
$$42\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+16\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}(c+d\,x)\right]+4\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{a^{3/2}\,(24\,A+11\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{8\,d}+\frac{a^2\,(24\,A+19\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{a\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{48\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]$$
$$\left(-3\,i\,(24\,A+11\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(24\,A+11\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$72\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$33\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$48\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+$$
$$52\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+18\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+4\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{3 a^{3/2} C \text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a \text{Cos}[c+d x]}}\right]}{d}-\frac{a^2 (8 A-3 C) \sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 d \sqrt{a+a \text{Cos}[c+d x]}}+$$

$$\frac{2 a A \sqrt{a+a \text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{d \sqrt{\text{Cos}[c+d x]}}+\frac{2 A (a+a \text{Cos}[c+d x])^{3/2} \text{Sin}[c+d x]}{3 d \text{Cos}[c+d x]^{3/2}}$$

$$\frac{1}{24 \sqrt{2}\, d \text{Cos}[c+d x]^{3/2} \sqrt{\text{Cos}[c+d x] (\text{Cos}[d x]+i \text{Sin}[d x])}} (a (1+\text{Cos}[c+d x]))^{3/2}$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^3 \left(\frac{9}{2} i C e^{-\frac{3}{2} i d x} \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i \text{Sin}\left[\frac{c}{2}\right]\right) \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right]\right.$$

$$\text{Cos}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]\right)^2-$$

$$\frac{9}{2} i C e^{-\frac{3}{2} i d x} \text{Cos}\left[\frac{c}{2}\right]^2 \text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right]$$

$$\left(\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]\right)^2+$$

$$\frac{9}{2} i C e^{-\frac{3}{2} i d x} \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i \text{Sin}\left[\frac{c}{2}\right]\right) \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right]$$

$$\text{Sin}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]\right)^2-$$

$$\frac{9}{2} i C e^{-\frac{3}{2} i d x} \text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right]$$

$$\text{Sin}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]\right)^2+$$

$$12 \sqrt{2}\, C \text{Cos}\left[\frac{d x}{2}\right] \text{Cos}[c+d x]^2 \text{Sin}\left[\frac{c}{2}\right] \sqrt{\text{Cos}[c+d x] (\text{Cos}[d x]+i \text{Sin}[d x])}+$$

$$12 \sqrt{2}\, C \text{Cos}\left[\frac{c}{2}\right] \text{Cos}[c+d x]^2 \text{Sin}\left[\frac{d x}{2}\right] \sqrt{\text{Cos}[c+d x] (\text{Cos}[d x]+i \text{Sin}[d x])}+$$

$$8 A \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2} (c+d x)\right]+$$

$$\left.40 A \text{Cos}[c+d x] \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a \text{Cos}[c+d x])^{3/2} \left(A+C \text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{7/2}}, x, 4, 0\right\}$$

$$\frac{2 a^{3/2} C \text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a \text{Cos}[c+d x]}}\right]}{d}+\frac{2 a^2 (4 A+5 C) \text{Sin}[c+d x]}{5 d \sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a \text{Cos}[c+d x]}}+$$

$$\frac{2 a A \sqrt{a+a \text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{5 d \text{Cos}[c+d x]^{3/2}}+\frac{2 A (a+a \text{Cos}[c+d x])^{3/2} \text{Sin}[c+d x]}{5 d \text{Cos}[c+d x]^{5/2}}$$

$$\frac{1}{20\sqrt{2}\, d\, \text{Cos}[c+d x]^{5/2}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,(a\,(1+\text{Cos}[c+d x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3$$

$$\left(\frac{5}{4}C e^{-\frac{5}{2}i d x}\text{Cos}\left[\frac{c}{2}\right]^2\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\right.$$

$$\left(i\left(1+e^{2 i d x}\right)\text{Cos}[c]-\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^3+$$

$$\frac{5}{4}C e^{-\frac{5}{2}i d x}\text{Log}\left[2\left(e^{i d x}\text{Cos}\left[\frac{c}{2}\right]+i e^{i d x}\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]$$

$$\text{Sin}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\text{Cos}[c]-\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^3+$$

$$\frac{5}{4}i C e^{-\frac{5}{2}i d x}\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]$$

$$\text{Cos}\left[\frac{c}{2}\right]^2\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^3+$$

$$\frac{5}{4}i C e^{-\frac{5}{2}i d x}\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\text{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^3+4A\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$12A\,\text{Cos}[c+d x]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$24\sqrt{2}\,A\,\text{Cos}[c+d x]^2\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.20\sqrt{2}\,C\,\text{Cos}[c+d x]^2\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d x]^{3/2}\,(a+a\,\text{Cos}[c+d x])^{5/2}\left(A+C\,\text{Cos}[c+d x]^2\right),\ x,\ 7,\ 0\right\}$$

$$\frac{a^{5/2}\,(1304A+1015C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]}{512\,d}+$$

$$\frac{a^3\,(1304A+1015C)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{512\,d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{a^3\,(1304A+1015C)\,\text{Cos}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{768\,d\sqrt{a+a\,\text{Cos}[c+d x]}}+$$

$$\frac{a^3\,(136A+109C)\,\text{Cos}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{192\,d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{a^2\,(24A+23C)\,\text{Cos}[c+d x]^{5/2}\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{96\,d}+$$

$$\frac{a\,C\,\text{Cos}[c+d x]^{5/2}\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{12\,d}+\frac{C\,\text{Cos}[c+d x]^{5/2}\,(a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sin}[c+d x]}{6\,d}$$

$$\frac{1}{3072\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-3\,i\,(1304\,A+1015\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$

$$3\,i\,(1304\,A+1015\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$3912\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$3045\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$6400\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$5152\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2160\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+1974\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$640\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+832\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+96\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+$$

$$316\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+96\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]+16\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{11}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right),\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}\,(400\,A+283\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{128\,d}+\frac{a^3\,(400\,A+283\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^3\,(1040\,A+787\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{960\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(80\,A+79\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,d}+$$

$$\frac{a\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{8\,d}+\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{3840\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-15\,i\,(400\,A+283\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$

$$15\,i\,(400\,A+283\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$6000\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$4245\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$

$$9920\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$7168\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$2400\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+2550\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+320\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+$$

$$976\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+300\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$

$$\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]+48\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{9}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{a^{5/2}\,(304\,A+163\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+$$

$$\frac{a^3\,(432\,A+299\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{192\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(16\,A+17\,C)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{32\,d}+$$

$$\frac{5\,a\,C\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{24\,d}+\frac{C\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,(304\,A+163\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(304\,A+163\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$912\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$489\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$960\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+800\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+96\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$270\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+80\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(8\,A+9\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{8\sqrt{a}\,d}+\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}+$$
$$\frac{(8\,A+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{8\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{12\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$
$$\frac{1}{16\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,i\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(-8\,i\,A\,d\,x-9\,i\,C\,d\,x-(8\,A+9\,C)\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.\right.$$
$$16\sqrt{2}\,(A+C)\,\text{Log}\left[16\sqrt{2}\,(A+C)\left(1+e^{i\,(c+d\,x)}\right)\right]+8\,A\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+9\,C\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$\left.16\sqrt{2}\,A\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-16\sqrt{2}\,C\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$
$$\left.\frac{4\sqrt{\text{Cos}[c+d\,x]}\,(24\,A+25\,C-2\,C\,\text{Cos}[c+d\,x]+4\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{(8A+7C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{4\sqrt{a}\,d}-$$

$$\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}-\frac{C\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{C\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{2d\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{8\sqrt{a\,(1+\text{Cos}[c+dx])}}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]$$

$$\left(\frac{1}{d\sqrt{1+e^{2i(c+dx)}}}\sqrt{2}\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\left(8Adx+7Cdx-i\,(8A+7C)\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+8i\sqrt{2}\,(A+C)\right.\right.$$

$$\text{Log}\left[8\sqrt{2}\,(A+C)\left(1+e^{i(c+dx)}\right)\right]+8i\,A\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+7i\,C\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$

$$8i\sqrt{2}\,A\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-8i\sqrt{2}\,C\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\Bigg)+$$

$$\left.\frac{4C\sqrt{\text{Cos}[c+dx]}\left(-2\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{3}{2}(c+dx)\right]\right)}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}+\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}+\frac{C\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{d\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{2\sqrt{a\,(1+\text{Cos}[c+dx])}}$$

$$\text{Cos}\left[\frac{1}{2}(c+dx)\right]\left(-\frac{1}{d\sqrt{1+e^{2i(c+dx)}}}i\sqrt{2}\,e^{\frac{1}{2}i(c+dx)}\sqrt{e^{-i(c+dx)}\left(1+e^{2i(c+dx)}\right)}\left(-i\,C\,dx-C\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+2\sqrt{2}\,(A+C)\,\text{Log}\right.\right.$$

$$\left[2\sqrt{2}\,(A+C)\left(1+e^{i(c+dx)}\right)\right]+C\,\text{Log}\left[-2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-2\sqrt{2}\,A\,\text{Log}\left[d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$

$$\left.\left.2\sqrt{2}\,C\,\text{Log}\left[d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)+\frac{4C\sqrt{\text{Cos}[c+dx]}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{\text{Cos}[c+dx]^{3/2}\sqrt{a+a\,\text{Cos}[c+dx]}},\ x,\ 4,\ 0\right\}$$

$$\frac{2C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}-\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]}{\sqrt{a}\,d}+\frac{2A\,\text{Sin}[c+dx]}{d\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(\frac{1}{\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\;e^{\frac{1}{2}i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(C\,d\,x-i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,(A+C)\,\text{Log}\left[\sqrt{2}\,(A+C)\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,C\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,A\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,C\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{4\,A\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{3\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{(A+9\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\sqrt{2}\,a^{3/2}\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(A+3\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\left(-\frac{1}{d\sqrt{1+e^{2\,i\,(c+d\,x)}}}i\sqrt{2}\;e^{\frac{1}{2}i\,(c+d\,x)}\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}\left(-6\,i\,C\,d\,x-6\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{2}\,(A+9\,C)\,\text{Log}\left[\sqrt{2}\,(A+9\,C)\left(1+e^{i\,(c+d\,x)}\right)\right]+6\,C\,\text{Log}\left[-2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\sqrt{2}\,A\,\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-9\sqrt{2}\,C\,\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{2\sqrt{\text{Cos}[c+d\,x]}\,(A+3\,C+2\,C\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{(3\,A-5\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\sqrt{2}\,a^{3/2}\,d}-\frac{(A+C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(4\,C\,d\,x-4\,i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(3\,A-5\,C)\,\text{Log}\left[\sqrt{2}\,(3\,A-5\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+4\,i\,C\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-\frac{2\,(A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 3,\ 0\right\}$$

$$-\frac{(7\,A-C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A+C)\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{i\,(7\,A-C)\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}+\frac{(4\,A+(5\,A+C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{5\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}+\frac{(3\,A+115\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{(A-15\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(3\,A+35\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,i\,\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(-80\,i\,C\,d\,x-80\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{2}\,(3\,A+115\,C)\,\text{Log}\left[\sqrt{2}\,(3\,A+115\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+80\,C\,\text{Log}\left[-d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-3\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-115\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{\sqrt{\text{Cos}[c+d\,x]}\,(3\,A+43\,C+(7\,A+55\,C)\,\text{Cos}[c+d\,x]+8\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,5,\,0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}+\frac{(5\,A-43\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{(5\,A-11\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(32\,C\,d\,x-32\,i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(5\,A-43\,C)\,\text{Log}\left[\sqrt{2}\,(5\,A-43\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,C\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{\sqrt{\text{Cos}[c+d\,x]}\,(5\,A-11\,C+(A-15\,C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{2\,a\,(3\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(5\,A+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a\,(3\,A+5\,C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,(5\,A+7\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{4\,a\,A\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{210} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \left(-\frac{63\sqrt{2} A e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\frac{105\sqrt{2} C e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\frac{50 A\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{70 C\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{2\sqrt{\text{Sec}[c+d x]}\left(21(3A+5C)\text{Cos}[d x]\text{Csc}[c]+\left(25A+35C+21A\text{Sec}[c+d x]+15A\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])\left(A+C\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{2a(3A+5C)\sqrt{\text{Cos}[c+d x]}\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+\frac{2a(A+3C)\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+\frac{2a(3A+5C)\sqrt{\text{Sec}[c+d x]}\text{Sin}[c+d x]}{5d}+\frac{4aA\text{Sec}[c+d x]^{3/2}\text{Sin}[c+d x]}{15d}+\frac{2A(a+a\text{Cos}[c+d x])\text{Sec}[c+d x]^{5/2}\text{Sin}[c+d x]}{5d}$$

$$\frac{1}{15d\left(1+e^{2i(c+d x)}\right)^2} a e^{-i(c+d x)}(1+\text{Cos}[c+d x])\left(5(A+3C)e^{i(c+d x)}\left(1+e^{2i(c+d x)}\right)^2\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-i\left(-9A-15C-5Ae^{i(c+d x)}-24Ae^{2i(c+d x)}-30Ce^{2i(c+d x)}-3Ae^{4i(c+d x)}-15Ce^{4i(c+d x)}+5Ae^{5i(c+d x)}+3(3A+5C)\left(1+e^{2i(c+d x)}\right)^{5/2}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)\right)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{\text{Sec}[c+d x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])\left(A+C\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2}, x, 6, 0\right\}$$

$$-\frac{2a(A-C)\sqrt{\text{Cos}[c+d x]}\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{2a(A+3C)\sqrt{\text{Cos}[c+d x]}\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+\frac{4aA\sqrt{\text{Sec}[c+d x]}\text{Sin}[c+d x]}{3d}+\frac{2A(a+a\text{Cos}[c+d x])\text{Sec}[c+d x]^{3/2}\text{Sin}[c+d x]}{3d}$$

$$\frac{1}{3\,d}\,a\,\text{Sec}[c+d\,x]^{3/2}\left(3\,i\,A-3\,i\,C+3\,i\,A\,\text{Cos}[2\,(c+d\,x)]-3\,i\,C\,\text{Cos}[2\,(c+d\,x)]+2\,(A+3\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-3\,i\,(A-C)\,e^{-2\,i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)^{3/2}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,A\,\text{Sin}[c+d\,x]+3\,A\,\text{Sin}[2\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{3/2},\,x,\,6,\,0\right\}$$

$$-\frac{2\,a\,(A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,a\,(3\,A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,d}-\frac{2\,a\,(3\,A-C)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}$$

$$\frac{1}{3\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\left(6\,i\,A\,\text{Cos}[c+d\,x]-6\,i\,C\,\text{Cos}[c+d\,x]+2\,(3\,A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-6\,i\,(A-C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+6\,A\,\text{Sin}[c+d\,x]+C\,\text{Sin}[2\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{2\,a\,(5\,A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(3\,A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+\frac{4\,a\,C\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{30\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\left(20\,(3\,A+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+12\,i\,(5\,A+3\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(10\,C\,\text{Sin}[c+d\,x]+3\,(-2\,i\,(5\,A+3\,C)+C\,\text{Sin}[2\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{2\,a\,(5\,A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{2\,a\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a\,C\,\text{Sin}[c+d\,x]}{35\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(7\,A+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{420\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\left(40\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+168\,i\,(5\,A+3\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(5\,(28\,A+23\,C)\,\text{Sin}[c+d\,x]+3\,(-28\,i\,(5\,A+3\,C)+14\,C\,\text{Sin}[2\,(c+d\,x)]+5\,C\,\text{Sin}[3\,(c+d\,x)]))\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$\frac{2\,a\,(9\,A+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{2\,a\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a\,C\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a\,(9\,A+7\,C)\,\text{Sin}[c+d\,x]}{45\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(7\,A+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2520\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\left(240\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+336\,i\,(9\,A+7\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-1512\,i\,A-1176\,i\,C+30\,(28\,A+23\,C)\,\text{Sin}[c+d\,x]+14\,(18\,A+19\,C)\,\text{Sin}[2\,(c+d\,x)]+90\,C\,\text{Sin}[3\,(c+d\,x)]+35\,C\,\text{Sin}[4\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{11/2},\,x,\,9,\,0\right\}$$

$$-\frac{16\,a^2\,(2\,A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+\frac{4\,a^2\,(5\,A+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{16\,a^2\,(2\,A+3\,C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{4\,a^2\,(5\,A+7\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a^2\,(19\,A+21\,C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{105\,d}+\frac{8\,a\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}$$

$$-\frac{1}{15\,d}4\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4-$$

$$\frac{1}{5\,d}2\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4+$$

$$\frac{5\,A\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{C\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d}+$$

$$(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{4\,(2\,A+3\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}[c]}{15\,d}+\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Sin}[d\,x]}{18\,d}+\right.$$

$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,(7\,A\,\mathrm{Sin}[c]+18\,A\,\mathrm{Sin}[d\,x])}{126\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,(90\,A\,\mathrm{Sin}[c]+112\,A\,\mathrm{Sin}[d\,x]+63\,C\,\mathrm{Sin}[d\,x])}{630\,d}+$$

$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(112\,A\,\mathrm{Sin}[c]+63\,C\,\mathrm{Sin}[c]+150\,A\,\mathrm{Sin}[d\,x]+210\,C\,\mathrm{Sin}[d\,x])}{630\,d}+\frac{(5\,A+7\,C)\,\mathrm{Tan}[c]}{21\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^2\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{9/2},x,8,0\right\}$$

$$-\frac{4\,a^2\,(3\,A+5\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,d}+$$

$$\frac{8\,a^2\,(3\,A+7\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{4\,a^2\,(3\,A+5\,C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d}+\frac{2\,a^2\,(33\,A+35\,C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{8\,a\,A\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{210} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{63\sqrt{2}\, A\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d} - \frac{105\sqrt{2}\, C\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d} + \frac{60 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d} + \frac{140 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d} + \frac{\sqrt{\text{Sec}[c+d x]}\left(42(3A+5C)\text{Cos}[d x]\,\text{Csc}[c]+\left(60A+35C+42A\,\text{Sec}[c+d x]+15A\,\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$

$$-\frac{16 a^2 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d} + \frac{4 a^2 (A+3C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d} + \frac{2 a^2 (17A+15C)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{15 d} + \frac{8 a A (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{15 d} + \frac{2 A (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{15} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(-\frac{1}{d\left(-1+e^{2ic}\right)} i\sqrt{2}\, e^{-i(c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\left(12A\left(1+e^{2i(c+d x)}\right)+12A\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]+5(A+3C)e^{i(c+d x)}\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2i(c+d x)}\right]\right) + \frac{\sqrt{\text{Sec}[c+d x]}\left(3(16A+5C-5C\,\text{Cos}[2c])\,\text{Cos}[d x]\,\text{Csc}[c]+30C\,\text{Cos}[c]\,\text{Sin}[d x]+2A(10+3\,\text{Sec}[c+d x])\,\text{Tan}[c+d x]\right)}{4 d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2}, x, 7, 0\right\}$$

$$-\frac{4 a^2 (A-C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+\frac{8 a^2 (A+C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}-\frac{2 a^2 (5 A-C) \text{Sin}[c+d x]}{3 d \sqrt{\text{Sec}[c+d x]}}+\frac{8 a A (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{3 d}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 d}$$

$$\frac{1}{6 d} a^2 \text{Sec}[c+d x]^{3/2} \left(12 i A-12 i C+12 i A \text{Cos}[2 (c+d x)]-12 i C \text{Cos}[2 (c+d x)]+16 (A+C) \text{Cos}[c+d x]^{3/2} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-12 i (A-C) e^{-2 i (c+d x)} \left(1+e^{2 i (c+d x)}\right)^{3/2} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]+4 A \text{Sin}[c+d x]+C \text{Sin}[c+d x]+12 A \text{Sin}[2 (c+d x)]+C \text{Sin}[3 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^2 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}, x, 7, 0\right\}$$

$$\frac{16 a^2 C \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^2 (3 A+C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}-\frac{2 a^2 (15 A-7 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}}-\frac{2 a (5 A-C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{5 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{d}$$

$$\frac{1}{30 d} a^2 \sqrt{\text{Sec}[c+d x]} \left(-96 i C \text{Cos}[c+d x]+96 i C e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]-40 i (3 A+C) \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[\frac{1}{4}, \frac{1}{2}, \frac{5}{4}, -e^{2 i (c+d x)}\right]+60 A \text{Sin}[c+d x]+3 C \text{Sin}[c+d x]+20 C \text{Sin}[2 (c+d x)]+3 C \text{Sin}[3 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^2 \left(A+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}, x, 7, 0\right\}$$

$$\frac{4 a^2 (5 A+3 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{8 a^2 (7 A+3 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+\frac{2 a^2 (35 A+33 C) \text{Sin}[c+d x]}{105 d \sqrt{\text{Sec}[c+d x]}}+\frac{8 a C (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 C (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{420 d} a^2 \sqrt{\text{Sec}[c+d x]} \left(160 (7 A+3 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]+336 i (5 A+3 C) e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]+2 \text{Cos}[c+d x] (-840 i A-504 i C+5 (28 A+51 C) \text{Sin}[c+d x]+84 C \text{Sin}[2 (c+d x)]+15 C \text{Sin}[3 (c+d x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{16\,a^2\,(3\,A+2\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+$$
$$\frac{4\,a^2\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a^2\,(21\,A+19\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$
$$\frac{8\,a\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^2\,(7\,A+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$\frac{1}{2520\,d}\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(480\,(7\,A+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]+$$
$$2688\,i\,(3\,A+2\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-4032\,i\,A-2688\,i\,C+$$
$$60\,(28\,A+23\,C)\,\text{Sin}[c+d\,x]+14\,(18\,A+37\,C)\,\text{Sin}[2\,(c+d\,x)]+180\,C\,\text{Sin}[3\,(c+d\,x)]+35\,C\,\text{Sin}[4\,(c+d\,x)]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},\ x,\ 9,\ 0\right\}$$

$$\frac{4\,a^2\,(9\,A+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+$$
$$\frac{8\,a^2\,(33\,A+25\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{231\,d}+$$
$$\frac{2\,a^2\,(99\,A+89\,C)\,\text{Sin}[c+d\,x]}{693\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{8\,a\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{99\,d\,\text{Sec}[c+d\,x]^{5/2}}+$$
$$\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{11\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{4\,a^2\,(9\,A+7\,C)\,\text{Sin}[c+d\,x]}{45\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{8\,a^2\,(33\,A+25\,C)\,\text{Sin}[c+d\,x]}{231\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$\frac{1}{55\,440\,d}\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(1920\,(33\,A+25\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]+$$
$$14\,784\,i\,(9\,A+7\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+$$
$$2\,\text{Cos}[c+d\,x]\,(-66\,528\,i\,A-51\,744\,i\,C+30\,(1122\,A+941\,C)\,\text{Sin}[c+d\,x]+616\,(18\,A+19\,C)\,\text{Sin}[2\,(c+d\,x)]+$$
$$1980\,A\,\text{Sin}[3\,(c+d\,x)]+4545\,C\,\text{Sin}[3\,(c+d\,x)]+1540\,C\,\text{Sin}[4\,(c+d\,x)]+315\,C\,\text{Sin}[5\,(c+d\,x)]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{13/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{4 a^3 (5 A+7 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5 d}+$$
$$\frac{4 a^3 (105 A+143 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{231 d}+$$
$$\frac{4 a^3 (5 A+7 C) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{5 d}+\frac{4 a^3 (105 A+143 C) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{231 d}+$$
$$\frac{8 a^3 (35 A+44 C) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{385 d}+\frac{2 a^2 (35 A+33 C) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{231 d}+$$
$$\frac{4 a A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{9/2} \text{Sin}[c+d x]}{33 d}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{11/2} \text{Sin}[c+d x]}{11 d}$$
$$-\frac{1}{2\sqrt{2}\,d} A e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\ (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$
$$\left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right) \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6-$$
$$\frac{1}{10\sqrt{2}\,d} 7 C e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\ (a+a \text{Cos}[c+d x])^3 \text{Csc}[c]$$
$$\left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right) \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6+$$
$$\frac{5 A \sqrt{\text{Cos}[c+d x]}\ (a+a \text{Cos}[c+d x])^3 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \sqrt{\text{Sec}[c+d x]}}{22 d}+$$
$$\frac{13 C \sqrt{\text{Cos}[c+d x]}\ (a+a \text{Cos}[c+d x])^3 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \sqrt{\text{Sec}[c+d x]}}{42 d}+$$
$$(a+a \text{Cos}[c+d x])^3 \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \sqrt{\text{Sec}[c+d x]}\ \left(\frac{(5 A+7 C) \text{Cos}[d x] \text{Csc}[c]}{10 d}+\frac{A \text{Sec}[c] \text{Sec}[c+d x]^5 \text{Sin}[d x]}{44 d}+\right.$$
$$\frac{\text{Sec}[c] \text{Sec}[c+d x]^4 (3 A \text{Sin}[c]+11 A \text{Sin}[d x])}{132 d}+\frac{\text{Sec}[c] \text{Sec}[c+d x]^3 (77 A \text{Sin}[c]+126 A \text{Sin}[d x]+33 C \text{Sin}[d x])}{924 d}+$$
$$\frac{\text{Sec}[c] \text{Sec}[c+d x]^2 (630 A \text{Sin}[c]+165 C \text{Sin}[c]+770 A \text{Sin}[d x]+693 C \text{Sin}[d x])}{4620 d}+$$
$$\left.\frac{\text{Sec}[c] \text{Sec}[c+d x] (770 A \text{Sin}[c]+693 C \text{Sin}[c]+1050 A \text{Sin}[d x]+1430 C \text{Sin}[d x])}{4620 d}+\frac{(105 A+143 C) \text{Tan}[c]}{462 d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{11/2}, x, 9, 0\right\}$$
$$-\frac{4 a^3 (17 A+27 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{15 d}+$$
$$\frac{4 a^3 (11 A+21 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{21 d}+\frac{4 a^3 (17 A+27 C) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{15 d}+$$
$$\frac{8 a^3 (16 A+21 C) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{105 d}+\frac{2 a^2 (73 A+63 C) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{315 d}+$$
$$\frac{4 a A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{21 d}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{9/2} \text{Sin}[c+d x]}{9 d}$$

$$-\frac{1}{30\sqrt{2}\,d}17\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$
$$\frac{1}{10\sqrt{2}\,d}9\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6+$$
$$\frac{11\,A\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$
$$\frac{C\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{2\,d}+$$
$$(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{(17\,A+27\,C)\,\mathrm{Cos}[dx]\,\mathrm{Csc}[c]}{30\,d}+\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^4\,\mathrm{Sin}[dx]}{36\,d}+\right.$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^3\,(7\,A\,\mathrm{Sin}[c]+27\,A\,\mathrm{Sin}[dx])}{252\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^2\,(135\,A\,\mathrm{Sin}[c]+238\,A\,\mathrm{Sin}[dx]+63\,C\,\mathrm{Sin}[dx])}{1260\,d}+$$
$$\left.\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,(238\,A\,\mathrm{Sin}[c]+63\,C\,\mathrm{Sin}[c]+330\,A\,\mathrm{Sin}[dx]+315\,C\,\mathrm{Sin}[dx])}{1260\,d}+\frac{(22\,A+21\,C)\,\mathrm{Tan}[c]}{84\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^3\left(A+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^{9/2},x,8,0\right\}$$
$$-\frac{4\,a^3\,(7\,A+5\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{5\,d}+$$
$$\frac{4\,a^3\,(13\,A+35\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{21\,d}+$$
$$\frac{8\,a^3\,(53\,A+70\,C)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{105\,d}+\frac{2\,a^2\,(7\,A+5\,C)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{15\,d}+$$
$$\frac{12\,a\,A\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{35\,d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{7\,d}$$

$$\frac{1}{420} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 147 \sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\right.$$

$$\text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right) -$$

$$\frac{105 \sqrt{2}\, C\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i (c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)}{d}$$

$$+\frac{130 A \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} +$$

$$\frac{350 C \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} + \frac{1}{2 d}$$

$$\sqrt{\text{Sec}[c+d x]} \left(21 (28 A+25 C-5 C \text{Cos}[2 c]) \text{Cos}[d x] \text{Csc}[c] +\right.$$

$$\left.\left.210 C \text{Cos}[c] \text{Sin}[d x]+2 \left(130 A+35 C+63 A \text{Sec}[c+d x]+15 A \text{Sec}[c+d x]^2\right) \text{Tan}[c+d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{7/2}, x, 8, 0\right\}$$

$$-\frac{4 a^3 (9 A-5 C) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d} +$$

$$\frac{4 a^3 (3 A+5 C) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d} -$$

$$\frac{4 a^3 (21 A+5 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}} + \frac{2 a^2 (11 A+5 C) (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{5 d} +$$

$$\frac{4 a A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{5 d} + \frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{60 d} a^3 e^{-i(2c+d x)} \text{Csc}[c] \text{Sec}[c] \sqrt{\text{Sec}[c+d x]}$$

$$\left(-12 (9 A-5 C) e^{-i(3c+d x)} \left(-1+e^{4 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right] +\right.$$

$$\frac{1}{2} \text{Sin}[2 c] \left(80 (3 A+5 C) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] +\right.$$

$$\text{Sec}[c+d x]^2 (36 i (9 A-5 C) \text{Cos}[c+d x]+12 i (9 A-5 C) \text{Cos}[3 (c+d x)]+2 (15 (4 A+C) \text{Cos}[c+d x] +$$

$$\left.\left.\left.6 (18 A+5 C) \text{Cos}[2 (c+d x)]+5 (24 A+6 C+C \text{Cos}[3 (c+d x)])) \text{Sin}[c+d x]\right)\right)\right) (\text{Cos}[2 c+d x]+i \text{Sin}[2 c+d x])$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{5/2}, x, 8, 0\right\}$$

$$-\frac{4 a^3 (5 A-9 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^3 (5 A+3 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}-\frac{8 a^3 (10 A-3 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}}-\frac{2 a^2 (35 A-3 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}}+\frac{4 a A (a+a \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{d}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 d}$$

$$\frac{1}{60 d} a^3 \text{Sec}[c+d x]^{3/2} \left(120 i A-216 i C+120 i A \text{Cos}[2 (c+d x)]-216 i C \text{Cos}[2 (c+d x)]+80 (5 A+3 C) \text{Cos}[c+d x]^{3/2} \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-24 i (5 A-9 C) e^{-2 i (c+d x)} \left(1+e^{2 i (c+d x)}\right)^{3/2} \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+40 A \text{Sin}[c+d x]+30 C \text{Sin}[c+d x]+180 A \text{Sin}[2 (c+d x)]+6 C \text{Sin}[2 (c+d x)]+30 C \text{Sin}[3 (c+d x)]+3 C \text{Sin}[4 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}, x, 8, 0\right\}$$

$$\frac{4 a^3 (5 A+7 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+\frac{4 a^3 (35 A+13 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}-\frac{4 a^3 (35 A-41 C) \text{Sin}[c+d x]}{105 d \sqrt{\text{Sec}[c+d x]}}-\frac{2 a^2 (35 A-11 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{35 d \sqrt{\text{Sec}[c+d x]}}-\frac{2 a (7 A-C) (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{7 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{d}$$

$$\frac{1}{420 d} a^3 \sqrt{\text{Sec}[c+d x]} \left(-1680 i A \text{Cos}[c+d x]-2352 i C \text{Cos}[c+d x]+80 (35 A+13 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+336 i (5 A+7 C) e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+840 A \text{Sin}[c+d x]+126 C \text{Sin}[c+d x]+140 A \text{Sin}[2 (c+d x)]+550 C \text{Sin}[2 (c+d x)]+126 C \text{Sin}[3 (c+d x)]+15 C \text{Sin}[4 (c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}, x, 8, 0\right\}$$

$$\frac{4 a^3 (27 A+17 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+\frac{4 a^3 (21 A+11 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+\frac{8 a^3 (21 A+16 C) \text{Sin}[c+d x]}{105 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2 (63 A+73 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{315 d \sqrt{\text{Sec}[c+d x]}}+\frac{4 a C (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{21 d \sqrt{\text{Sec}[c+d x]}}+\frac{2 C (a+a \text{Cos}[c+d x])^3 \text{Sin}[c+d x]}{9 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{2520\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(480\,(21\,A+11\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+672\,i\,(27\,A+17\,C)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-9072\,i\,A-5712\,i\,C+30\,(84\,A+97\,C)\,\text{Sin}[c+d\,x]+14\,(18\,A+73\,C)\,\text{Sin}[2\,(c+d\,x)]+270\,C\,\text{Sin}[3\,(c+d\,x)]+35\,C\,\text{Sin}[4\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},x,9,0\right\}$$

$$\frac{4\,a^3\,(7\,A+5\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+\frac{4\,a^3\,(143\,A+105\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{231\,d}+\frac{8\,a^3\,(44\,A+35\,C)\,\text{Sin}[c+d\,x]}{385\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a^2\,(33\,A+35\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{231\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{33\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{11\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(143\,A+105\,C)\,\text{Sin}[c+d\,x]}{231\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{18\,480\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(320\,(143\,A+105\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+14\,784\,i\,(7\,A+5\,C)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-51\,744\,i\,A-36\,960\,i\,C+10\,(2354\,A+1953\,C)\,\text{Sin}[c+d\,x]+308\,(18\,A+25\,C)\,\text{Sin}[2\,(c+d\,x)]+660\,A\,\text{Sin}[3\,(c+d\,x)]+2835\,C\,\text{Sin}[3\,(c+d\,x)]+770\,C\,\text{Sin}[4\,(c+d\,x)]+105\,C\,\text{Sin}[5\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},x,10,0\right\}$$

$$\frac{4\,a^3\,(221\,A+175\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{195\,d}+\frac{4\,a^3\,(121\,A+95\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{231\,d}+\frac{40\,a^3\,(143\,A+118\,C)\,\text{Sin}[c+d\,x]}{9009\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a^2\,(143\,A+145\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{1287\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{12\,a\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{143\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{13\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{4\,a^3\,(221\,A+175\,C)\,\text{Sin}[c+d\,x]}{585\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(121\,A+95\,C)\,\text{Sin}[c+d\,x]}{231\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{1\,441\,440\,d}a^3\sqrt{\text{Sec}[c+d\,x]}\left(24\,960\,(121\,A+95\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]+29\,568\,i\,(221\,A+175\,C)\,e^{-i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]\,(-3\,267\,264\,i\,A-2\,587\,200\,i\,C+780\,(2134\,A+1811\,C)\,\text{Sin}[c+d\,x]+77\,(7592\,A+7825\,C)\,\text{Sin}[2\,(c+d\,x)]+154\,440\,A\,\text{Sin}[3\,(c+d\,x)]+251\,550\,C\,\text{Sin}[3\,(c+d\,x)]+20\,020\,A\,\text{Sin}[4\,(c+d\,x)]+90\,860\,C\,\text{Sin}[4\,(c+d\,x)]+24\,570\,C\,\text{Sin}[5\,(c+d\,x)]+3465\,C\,\text{Sin}[6\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{7/2}}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 8,\ 0\right\}$$

$$-\frac{3\,(7\,A+5\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,a\,d}-$$

$$\frac{(5\,A+3\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,d}+\frac{3\,(7\,A+5\,C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,a\,d}-$$

$$\frac{(5\,A+3\,C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d}+\frac{(7\,A+5\,C)\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,a\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{15\,a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}63\,\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{45\,\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{50\,A\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}-$$

$$\frac{30\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(18\,(7\,A+5\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}[c]-\right.$$

$$\left.\left.(13\,A+15\,C+8\,A\,\mathrm{Cos}[c+d\,x]+5\,(5\,A+3\,C)\,\mathrm{Cos}[2\,(c+d\,x)])\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 7,\ 0\right\}$$

$$\frac{(3\,A+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(5\,A+3\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,d}-\frac{(3\,A+C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a\,d}+$$

$$\frac{(5\,A+3\,C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{9\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{3\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{10\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{6\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\sqrt{\text{Sec}[c+d\,x]}\left(-6\,(3\,A+C)\,\text{Cos}[d\,x]\,\text{Csc}[c]+2\,(5\,A+3\,C+2\,A\,\text{Sec}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$-\frac{(3\,A+C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-$$

$$\frac{(A-C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(3\,A+C)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d}-\frac{(A+C)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\left(2\,A\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(A+C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+(3\,A+C)\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{(A+3\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(A-C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,(1+\mathrm{Cos}[c+d\,x])}\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\left(\frac{\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{3\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ \mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{2\left((A+2\,C)\,\mathrm{Cos}\left[\frac{1}{2}(c-d\,x)\right]+C\,\mathrm{Cos}\left[\frac{1}{2}(3\,c+d\,x)\right]\right)\mathrm{Csc}[c]\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\left.\frac{2\,A\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}-\frac{2\,C\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(A+3\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(3\,A+5\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,d}-$$

$$\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A+5\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{9\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{6\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{10\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((6\,A+13\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+C\left(5\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+2\,\text{Sin}[c]\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)}{d\sqrt{\text{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{3\,(5\,A+7\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}-$$

$$\frac{(3\,A+5\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-$$

$$\frac{(A+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}+\frac{(5\,A+7\,C)\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(3\,A+5\,C)\,\text{Sin}[c+d\,x]}{3\,a\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{45\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{63\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{30\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{50\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-\frac{1}{d\sqrt{\text{Sec}[c+d\,x]}}\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left.\left((60\,A+83\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(30\,A+43\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+C\,\text{Sin}[c]\left(7\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-3\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}},x,8,0\right\}$$

$$-\frac{3\,(5\,A+7\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}+$$

$$\frac{5\,(7\,A+9\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,a\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}}+$$

$$\frac{(7\,A+9\,C)\,\text{Sin}[c+d\,x]}{7\,a\,d\,\text{Sec}[c+d\,x]^{5/2}}-\frac{(5\,A+7\,C)\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{5\,(7\,A+9\,C)\,\text{Sin}[c+d\,x]}{21\,a\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{105\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}315\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\right.$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-\frac{1}{d}441\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}$$

$$\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{350\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{450\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{1}{4\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((1820\,A+2439\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(700\,A+1089\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$\left.\left.2\,(140\,A+201\,C+(280\,A+402\,C)\,\text{Cos}[c+d\,x]-24\,C\,\text{Cos}[2\,(c+d\,x)]+30\,C\,\text{Cos}[3\,(c+d\,x)])\,\text{Sin}[c]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 8,\ 0\right\}$$

$$\frac{(7\,A+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{2\,(5\,A+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(7\,A+C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{a^2\,d}+$$

$$\frac{2\,(5\,A+C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(A+C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(7\,A+C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a^2\,d\,(1+\mathrm{Cos}[c+d\,x])^2}$$

$$2\,e^{-i\,(2\,c+d\,x)}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4\left(6\,i\,\sqrt{2}\,(7\,A+C)\,e^{i\,c}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+\right.$$

$$\frac{1}{\left(1+e^{i\,(c+d\,x)}\right)^3\left(1+e^{2\,i\,(c+d\,x)}\right)}\,2\,e^{i\,c}\left(-i\left(C\left(1+e^{2\,i\,(c+d\,x)}\right)^2\left(3+7\,e^{i\,(c+d\,x)}+2\,e^{2\,i\,(c+d\,x)}\right)+\right.\right.$$

$$A\left(21+53\,e^{i\,(c+d\,x)}+68\,e^{2\,i\,(c+d\,x)}+82\,e^{3\,i\,(c+d\,x)}+65\,e^{4\,i\,(c+d\,x)}+37\,e^{5\,i\,(c+d\,x)}+10\,e^{6\,i\,(c+d\,x)}\right)\Big)+$$

$$\left.\left.2\,(5\,A+C)\,e^{i\,(c+d\,x)}\left(1+e^{i\,(c+d\,x)}\right)^3\left(1+e^{2\,i\,(c+d\,x)}\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\right)\sqrt{\mathrm{Sec}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{4\,A\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}-\frac{(5\,A-C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}+$$

$$\frac{4\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{a^2\,d}-\frac{(A+C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(5\,A-C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(-\frac{1}{d\left(-1+e^{2\,i\,c}\right)}4\,i\,\sqrt{2}\,e^{-i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\left(12\,A\left(1+e^{2\,i\,(c+d\,x)}\right)+12\,A\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\right.\right.\right.$$

$$\left.\left.\frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]-(5\,A-C)\,e^{i\,(c+d\,x)}\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{2},\ \frac{5}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{2\,d}\left((29\,A-C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(19\,A+C)\,\mathrm{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+31\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+C\,\mathrm{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+\right.$$

$$\left.5\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]-C\,\mathrm{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+12\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\mathrm{Csc}[c]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\mathrm{Sec}[c+d\,x]}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$\frac{(A-C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+\frac{2\,(A+C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{(A-C)\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a^2\,(1+\mathrm{Cos}[c+d\,x])^2}\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^4\left(\frac{6\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\frac{6\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\frac{\left((7\,A-5\,C)\,\mathrm{Cos}\left[\frac{1}{2}(c-d\,x)\right]+2\,(A-2\,C)\,\mathrm{Cos}\left[\frac{1}{2}(3\,c+d\,x)\right]+3\,(A-C)\,\mathrm{Cos}\left[\frac{1}{2}(c+3\,d\,x)\right]\right)\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3}{2\,d\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{8\,A\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{8\,C\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{4\,C\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}+\frac{(A-5\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(A-5\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4\left(\frac{1}{d(-1+e^{2ic})}4i\sqrt{2}\,e^{-i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\right.$$
$$\left(12C\left(1+e^{2i(c+dx)}\right)+12C\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]-\right.$$
$$\left.(A-5C)\,e^{i(c+dx)}\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[\frac{1}{4},\frac{1}{2},\frac{5}{4},-e^{2i(c+dx)}\right]\right)+\frac{1}{d\sqrt{\text{Sec}[c+dx]}}$$
$$\left((A-20C)\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]-(A+16C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]-3C\left(3\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]\right)\right)$$
$$\left.\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{3/2}},x,7,0\right\}$$
$$-\frac{(A+7C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2d}+$$
$$\frac{2(A+5C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}-$$
$$\frac{(A+C)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}}-\frac{(A+7C)\,\text{Sin}[c+dx]}{3ad(a+a\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{3/2}}+\frac{2(A+5C)\,\text{Sin}[c+dx]}{3a^2d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$
$$\left(-\frac{6\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$
$$\frac{42\sqrt{2}\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$
$$+\frac{1}{2d\sqrt{\text{Sec}[c+dx]}}\left(2(5A+36C)\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(8A+54C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+6A\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+\right.$$
$$\left.33C\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+9C\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]+C\,\text{Cos}\left[\frac{1}{2}(3c+5dx)\right]-C\,\text{Cos}\left[\frac{1}{2}(7c+5dx)\right]\right)$$
$$\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3+\frac{8A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$
$$\left.\frac{40C\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}},x,8,0\right\}$$

$$\frac{4\,(5\,A+14\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a^2\,d}-$$

$$\frac{5\,(A+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{7/2}}-$$

$$\frac{(A+3\,C)\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}+\frac{4\,(5\,A+14\,C)\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,\text{Sec}[c+d\,x]^{3/2}}-\frac{5\,(A+3\,C)\,\text{Sin}[c+d\,x]}{3\,a^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a^2\,(1+\text{Cos}[c+d\,x])^2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^4$$

$$\left(\frac{120\,\sqrt{2}\;A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}\right.$$

$$+\frac{1}{d}336\,\sqrt{2}\;C\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\text{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left(5\,(80\,A+229\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(320\,A+871\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+180\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+\right.$$

$$507\,C\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+60\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+165\,C\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+11\,C\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]-$$

$$\left.11\,C\,\text{Cos}\left[\frac{1}{2}\,(7\,c+5\,d\,x)\right]-3\,C\,\text{Cos}\left[\frac{1}{2}\,(5\,c+7\,d\,x)\right]+3\,C\,\text{Cos}\left[\frac{1}{2}\,(9\,c+7\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$\frac{100\,A\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\left.\frac{300\,C\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,9,\,0\right\}$$

$$\frac{(119\,A+9\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(11\,A+C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{2\,a^3\,d}-$$

$$\frac{(119\,A+9\,C)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{10\,a^3\,d}+\frac{(11\,A+C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,a^3\,d}-$$

$$\frac{(A+C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{2\,A\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(119\,A+9\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{44\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{2\,(119\,A+9\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(13\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(29\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{16\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\left.\frac{4\,(4\,A+33\,A\,\mathrm{Cos}[c]+3\,C\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+\frac{4\,(13\,A+3\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},x,8,0\right\}$$

$$-\frac{(49\,A-C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}-$$

$$\frac{(13\,A-C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(49\,A-C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d}-$$

$$\frac{(A+C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{2\,(4\,A-C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\,(49\,A-C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}-\right.$$

$$\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(4\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(39\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(26\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\left.\frac{4\,(13\,A-C)\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}-\frac{8\,(4\,A-C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},x,7,0\right\}$$

$$\frac{(9\,A-C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(3\,A+C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{\mathrm{Sec}[c+d\,x]}}-$$

$$\frac{2\,(3\,A-2\,C)\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{(9\,A-C)\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(\frac{54\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{6\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{1}{8\,d\sqrt{\text{Sec}[c+d\,x]}}\left(2\,(93\,A-7\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+4\,(21\,A-4\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$120\,A\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]-20\,C\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+15\,A\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+5\,C\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+$$

$$\left.27\,A\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]-3\,C\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\frac{60\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{20\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^3\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(A-9\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(A+3\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{2\,(2\,A-3\,C)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{\text{Sec}[c+d\,x]}}-\frac{(A-9\,C)\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a^3\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^6$$

$$\left(\frac{6\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{54\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{1}{8\,d\,\sqrt{\text{Sec}[c+d\,x]}}\left(4\,(A-39\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+2\,(13\,A-57\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+\right.$$

$$\left.(A-9\,C)\left(10\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]+5\,\text{Cos}\left[\frac{1}{2}\,(5\,c+3\,d\,x)\right]+3\,\text{Cos}\left[\frac{1}{2}\,(3\,c+5\,d\,x)\right]\right)\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\frac{20\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{60\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{(A-49\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(A-13\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{2\,(A-4\,C)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(A-13\,C)\,\text{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6$$

$$\left(-\frac{6\sqrt{2}\, A e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)}{d}+\right.$$

$$\frac{1}{d} 294\sqrt{2}\, C e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c]$$

$$\left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)-\frac{1}{4 d\sqrt{\text{Sec}[c+d x]}}$$

$$\left((-14 A+806 C)\text{Cos}\left[\frac{1}{2}(c-d x)\right]-8(2 A-83 C)\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]-20 A\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+470 C\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+\right.$$

$$5 A\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+265 C\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]-3 A\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+117 C\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+$$

$$\left.30 C\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5+\frac{20 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}-$$

$$\left.\frac{260 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d x]^2}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{5/2}}, x, 8, 0\right\}$$

$$-\frac{(9 A+119 C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+$$

$$\frac{(A+11 C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{2 a^3 d}-\frac{(A+C)\,\text{Sin}[c+d x]}{5 d\,(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}}-$$

$$\frac{2 C\,\text{Sin}[c+d x]}{3 a d\,(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{5/2}}-\frac{(9 A+119 C)\,\text{Sin}[c+d x]}{30 a^2 d\,(a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}}+\frac{(A+11 C)\,\text{Sin}[c+d x]}{2 a^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 18 \sqrt{2} A e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right) - \frac{1}{d} 238 \sqrt{2} C e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right) + \frac{1}{12 d \sqrt{\text{Sec}[c+d x]}} \left((156 A+1961 C) \text{Cos}\left[\frac{1}{2}(c-d x)\right] + (114 A+1609 C) \text{Cos}\left[\frac{1}{2}(3 c+d x)\right] + 90 A \text{Cos}\left[\frac{1}{2}(c+3 d x)\right] + 1165 C \text{Cos}\left[\frac{1}{2}(c+3 d x)\right] + 45 A \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right] + 620 C \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right] + 27 A \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right] + 292 C \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right] + 65 C \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right] + 5 C \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right] - 5 C \text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]\right) \text{Csc}[c] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^5 + \frac{20 A \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} + \frac{220 C \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C \text{Cos}[c+d x]^2}{(a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{7/2}}, x, 9, 0\right\}$$

$$\frac{7 (7 A+33 C) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{10 a^3 d} - \frac{(13 A+63 C) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{6 a^3 d} - \frac{(A+C) \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{9/2}} - \frac{2 (A+6 C) \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{7/2}} - \frac{(13 A+63 C) \text{Sin}[c+d x]}{10 a^2 d (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}} + \frac{7 (7 A+33 C) \text{Sin}[c+d x]}{30 a^3 d \text{Sec}[c+d x]^{3/2}} - \frac{(13 A+63 C) \text{Sin}[c+d x]}{6 a^3 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6$$

$$\left(\frac{294 \sqrt{2}\, A e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)}{d}\right.$$

$$+\frac{1}{d} 1386 \sqrt{2}\, C e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\, \text{Csc}[c]$$

$$\left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)-$$

$$\frac{1}{8 d \sqrt{\text{Sec}[c+d x]}} \left(2 (806 A+3795 C) \text{Cos}\left[\frac{1}{2}(c-d x)\right]+2 (664 A+3135 C) \text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+940 A \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+\right.$$

$$4500 C \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+530 A \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+2430 C \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+234 A \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+$$

$$1110 C \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+60 A \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+276 C \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+15 C \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-$$

$$\left.15 C \text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]-3 C \text{Cos}\left[\frac{1}{2}(7 c+9 d x)\right]+3 C \text{Cos}\left[\frac{1}{2}(11 c+9 d x)\right]\right) \text{Csc}[c] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$\frac{260 A \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}-$$

$$\left.\frac{1260 C \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a \text{Cos}[c+d x]}\, \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{5/2}, x, 4, 0\right\}$$

$$\frac{2 \sqrt{a}\, C \text{ArcTan}\left[\frac{\sqrt{a} \text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]} \sqrt{a+a \text{Cos}[c+d x]}}\right] \sqrt{\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{2 a A \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{3 d \sqrt{a+a \text{Cos}[c+d x]}}+\frac{2 A \sqrt{a+a \text{Cos}[c+d x]}\, \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 d}$$

$$\frac{1}{6 d \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}}\, i \sqrt{a (1+\text{Cos}[c+d x])}\, \text{Sec}\left[\frac{1}{2}(c+d x)\right] \text{Sec}[c+d x]^{3/2} \left(\text{Cos}\left[\frac{d x}{2}\right]+i \text{Sin}\left[\frac{d x}{2}\right]\right)$$

$$\left(6 C \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i \text{Sin}\left[\frac{c}{2}\right]\right) \sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right] \text{Cos}[c+d x]^2-3 C \text{Cos}[2 (c+d x)]\right.$$

$$\text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right]-\left(\text{Cos}\left[\frac{d x}{2}\right]-i \text{Sin}\left[\frac{d x}{2}\right]\right)$$

$$\left(3 C \text{Cos}\left[\frac{d x}{2}\right] \text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right]+\right.$$

$$3 i C \text{Log}\left[2 \left(e^{i d x} \text{Cos}\left[\frac{c}{2}\right]+i e^{i d x} \text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right) \text{Cos}[c]+i \left(-1+e^{2 i d x}\right) \text{Sin}[c]}\right)\right] \text{Sin}\left[\frac{d x}{2}\right]+$$

$$\left.\left.4 i \sqrt{2}\, A \sqrt{\text{Cos}[c+d x] (\text{Cos}[d x]+i \text{Sin}[d x])}\, \text{Sin}\left[\frac{3}{2}(c+d x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{\sqrt{a}\ C\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\ \mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}}{d}-$$

$$\frac{a\,(2\,A-C)\,\mathrm{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{d}$$

$$\frac{1}{4\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\ \mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(-i\,C\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]-\right.$$

$$i\,C\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+$$

$$2\,i\,C\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\ \right]\mathrm{Cos}[c+d\,x]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$8\,\sqrt{2}\ A\,\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\ C\,\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\ C\,\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$\left.C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]},\ x,\ 4,\ 0\right\}$$

$$\frac{\sqrt{a}\ (8\,A+3\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\ \mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}}{4\,d}+$$

$$\frac{a\,C\,\mathrm{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{C\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,\sqrt{2}\ d\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\ \mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-i\,(8\,A+3\,C)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+\right.$$

$$i\,(8\,A+3\,C)\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\ \right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$8\,A\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$3\,C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,\sqrt{2}\ C$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\ C\,\sqrt{\mathrm{Cos}[c+d\,x]\ (\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\ \mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{\sqrt{a}\,(8A+5C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{8d}+$$

$$\frac{a\,C\,\text{Sin}[c+dx]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{C\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,d\,\text{Sec}[c+dx]^{3/2}}+\frac{a\,(8A+5C)\,\text{Sin}[c+dx]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{48\sqrt{2}\,d\,\sqrt{\text{Sec}[c+dx]}\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(-3\,i\,(8A+5C)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]+$$

$$3\,i\,(8A+5C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$

$$24\,A\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$15\,C\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$48\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+$$

$$28\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+6\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{3}{2}(c+dx)\right]+4\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{5}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+dx]}\,\left(A+C\,\text{Cos}[c+dx]^2\right)}{\text{Sec}[c+dx]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{\sqrt{a}\,(48A+35C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{64\,d}+\frac{a\,C\,\text{Sin}[c+dx]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}}+$$

$$\frac{C\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4\,d\,\text{Sec}[c+dx]^{5/2}}+\frac{a\,(48A+35C)\,\text{Sin}[c+dx]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{a\,(48A+35C)\,\text{Sin}[c+dx]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{384\sqrt{2}\,d\,\sqrt{\text{Sec}[c+dx]}\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(-3\,i\,(48A+35C)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]+$$

$$3\,i\,(48A+35C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{dx}{2}\right]+i\,\text{Sin}\left[\frac{dx}{2}\right]\right)+$$

$$144\,A\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$105\,C\,\text{Log}\left[2\left(e^{i\,dx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,dx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,dx}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,dx}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{dx}{2}\right]+$$

$$192\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+160\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{1}{2}(c+dx)\right]+96\sqrt{2}\,A\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+$$

$$78\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{3}{2}(c+dx)\right]+16\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}$$

$$\text{Sin}\left[\frac{5}{2}(c+dx)\right]+12\sqrt{2}\,C\,\sqrt{\text{Cos}[c+dx]\,(\text{Cos}[dx]+i\,\text{Sin}[dx])}\,\text{Sin}\left[\frac{7}{2}(c+dx)\right]\Bigg)$$

Incorrect antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^{7/2},\ x,\ 5,\ 0\}$$

$$\frac{2\,a^{3/2}\,C\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+\frac{2\,a^2\,(4\,A+5\,C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}$$

$$\frac{1}{20\,d\,\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}}\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(5\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\right]$$

$$\mathrm{Cos}\left[\frac{c}{2}\right]^2\,\left(i\,(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]-(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]\right)+5\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{ArcTanh}\Big[$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\Big]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2\,\left(i\,(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]-(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]\right)-$$

$$5\,i\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]^2\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\right)\right]$$

$$\left((1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]\right)-$$

$$5\,i\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2$$

$$\left((1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]\right)+24\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]\,\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$20\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]\,\sqrt{(1+e^{2\,i\,d\,x})\,\mathrm{Cos}[c]+i\,(-1+e^{2\,i\,d\,x})\,\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+24\,\sqrt{2}\,A\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]$$

$$\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}+20\,\sqrt{2}\,C\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}+$$

$$12\,\sqrt{2}\,A\,\mathrm{Sec}[c+d\,x]\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$4\,\sqrt{2}\,A\,\mathrm{Sec}[c+d\,x]^2\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^{5/2},\ x,\ 5,\ 0\}$$

$$\frac{3\,a^{3/2}\,C\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d}-\frac{a^2\,(8\,A-3\,C)\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{2\,a\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{24\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}}\,\left(a\,\left(1+\mathrm{Cos}[c+d\,x]\right)\right)^{3/2}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(9\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\right]$$

$$\mathrm{Cos}\left[\frac{c}{2}\right]^2\,\left(i\,\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]-\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]\right)+9\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{ArcTanh}\Big[$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\Big]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2\,\left(i\,\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]-\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]\right)-$$

$$9\,i\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]^2\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\right)\right]$$

$$\left(\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]\right)-$$

$$9\,i\,C\,e^{-\frac{1}{2}\,i\,d\,x}\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\right)\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]\right)+40\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-$$

$$6\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+40\,\sqrt{2}\,A\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]$$

$$\sqrt{\mathrm{Cos}[c+d\,x]\,\left(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x]\right)}-6\,\sqrt{2}\,C\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{c}{2}\right]\,\sqrt{\mathrm{Cos}[c+d\,x]\,\left(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x]\right)}+$$

$$6\,\sqrt{2}\,C\,\mathrm{Cos}\left[\frac{3\,d\,x}{2}\right]\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]\,\sqrt{\mathrm{Cos}[c+d\,x]\,\left(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x]\right)}+$$

$$6\,C\,\mathrm{Cos}\left[\frac{3\,c}{2}\right]\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+$$

$$8\,\sqrt{2}\,A\,\mathrm{Sec}[c+d\,x]\,\sqrt{\mathrm{Cos}[c+d\,x]\,\left(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\left(a+a\,\mathrm{Cos}[c+d\,x]\right)^{3/2}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 5,\ 0\right\}$$

$$\frac{a^{3/2}\,(8\,A+7\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,d}-\frac{a^2\,(8\,A-5\,C)\,\mathrm{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-$$

$$\frac{a\,(4\,A-C)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,\left(a+a\,\mathrm{Cos}[c+d\,x]\right)^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d}$$

$$\frac{1}{16\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}}\,a\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(-i\,(8\,A+7\,C)\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]-$$

$$8\,i\,A\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]-$$

$$7\,i\,C\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]+2\,i\,(8\,A+7\,C)$$

$$\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right]\,\mathrm{Cos}[c+d\,x]\,\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$8\,A\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$7\,C\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$32\,\sqrt{2}\;A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$10\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+12\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+$$

$$8\,A\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$7\,C\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\sqrt{\mathrm{Sec}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{a^{3/2}\,(24\,A+11\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\;\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{\mathrm{Sec}[c+d\,x]}}{8\,d}+$$

$$\frac{a^2\,(24\,A+19\,C)\,\mathrm{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\;\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{a\,C\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{4\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{C\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{48\,\sqrt{2}\;d\,\sqrt{\mathrm{Sec}[c+d\,x]}\;\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-3\,i\,(24\,A+11\,C)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]+$$

$$3\,i\,(24\,A+11\,C)\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right]\,\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$72\,A\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$33\,C\,\mathrm{Log}\left[2\,\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\mathrm{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\mathrm{Sin}[c]}\right)\right]\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$48\,\sqrt{2}\;A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$52\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+18\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+4\,\sqrt{2}\;C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{3/2}\,(112\,A+75\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{64\,d}+\frac{a^2\,(16\,A+13\,C)\,\mathrm{Sin}[c+d\,x]}{32\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{a\,C\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{8\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{C\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(112\,A+75\,C)\,\mathrm{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{128\,\sqrt{2}\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}}\,a\,\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-i\,(112\,A+75\,C)\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+$$

$$i\,(112\,A+75\,C)\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)+$$

$$112\,A\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$75\,C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$192\,\sqrt{2}\,A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+128\,\sqrt{2}\,C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+32\,\sqrt{2}\,A\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$

$$42\,\sqrt{2}\,C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+16\,\sqrt{2}\,C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+4\,\sqrt{2}\,C\,\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\,\mathrm{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{a^{3/2}\,(176\,A+133\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{128\,d}+$$

$$\frac{a^2\,(80\,A+67\,C)\,\mathrm{Sin}[c+d\,x]}{240\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{3\,a\,C\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{40\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{C\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{a^2\,(176\,A+133\,C)\,\mathrm{Sin}[c+d\,x]}{192\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(176\,A+133\,C)\,\mathrm{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{3840\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\,\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,a\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\Bigg(-15\,i\,(176\,A+133\,C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+$$
$$15\,i\,(176\,A+133\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$2640\,A\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$1995\,C\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$4160\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$3328\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$1440\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+1290\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{3}{2}(c+d x)\right]+320\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+$$
$$496\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+180\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{7}{2}(c+d x)\right]+48\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{9}{2}(c+d x)\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{5/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{9/2},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,a^{5/2}\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{d}+$$
$$\frac{2\,a^3\,(32\,A+49\,C)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{21\,d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{2\,a^2\,(8\,A+7\,C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{21\,d}+$$
$$\frac{2\,a\,A\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{7\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{7/2}\,\text{Sin}[c+d x]}{7\,d}$$

$$\frac{1}{4} C \sqrt{\text{Cos}[c+d x]}\ (a\,(1+\text{Cos}[c+d x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \sqrt{\text{Sec}[c+d x]}\ \left(\frac{1}{2} i\,\text{Sin}\left[\frac{c}{2}\right]\right.$$
$$\left(-\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\left(\text{Cos}\left[\frac{c}{2}\right]-i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.\right.$$
$$\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)-$$
$$\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\right.$$
$$\left.\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/$$
$$\left.\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right)+\frac{1}{2}\text{Cos}\left[\frac{c}{2}\right]$$
$$\left(-\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\left(\text{Cos}\left[\frac{c}{2}\right]-i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.\right.$$
$$\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)+$$
$$\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.$$
$$\left.\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right)\right)+$$

$$(a\,(1+\text{Cos}[c+d x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^5\sqrt{\text{Sec}[c+d x]}\ \left(\frac{(23 A+28 C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{21 d}+\right.$$
$$\frac{(23 A+28 C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d x}{2}\right]}{21 d}+$$
$$\frac{2 A\,\text{Sec}[c+d x]^2\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]}{7 d}+$$
$$\frac{A\,\text{Sec}[c+d x]^3\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]}{14 d}+$$
$$\left.\frac{\text{Sec}[c+d x]\left(23 A\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+7 C\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)}{42 d}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{5/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2},\ x,\ 6,\ 0\right\}$$

$$\frac{5 a^{5/2} C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{d}-$$
$$\frac{a^3\,(64 A+15 C)\,\text{Sin}[c+d x]}{15 d\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2\,(8 A+5 C)\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{5 d}+$$
$$\frac{2 a A\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 d}+\frac{2 A\,(a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{240\,d\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}}\left(a\left(1+\mathrm{Cos}[c+d x]\right)\right)^{5/2}\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^5$$

$$\sqrt{\mathrm{Sec}[c+d x]}\left(75\,C\,e^{-\frac{1}{2} i d x}\,\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right]\right.$$

$$\mathrm{Cos}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]-\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)+75\,C\,e^{-\frac{1}{2} i d x}\,\mathrm{ArcTanh}\Big[$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\Big]\,\mathrm{Sin}\left[\frac{c}{2}\right]^2\left(i\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]-\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)-$$

$$75\,i\,C\,e^{-\frac{1}{2} i d x}\,\mathrm{Cos}\left[\frac{c}{2}\right]^2\mathrm{Log}\left[2\left(e^{i d x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right)\right]$$

$$\left(\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)-$$

$$75\,i\,C\,e^{-\frac{1}{2} i d x}\,\mathrm{Log}\left[2\left(e^{i d x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]\right)+344\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d x}{2}\right]+$$

$$90\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{d x}{2}\right]+344\sqrt{2}\,A\,\mathrm{Cos}\left[\frac{d x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]$$

$$\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}+90\sqrt{2}\,C\,\mathrm{Cos}\left[\frac{d x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}+$$

$$30\sqrt{2}\,C\,\mathrm{Cos}\left[\frac{3 d x}{2}\right]\mathrm{Sin}\left[\frac{3 c}{2}\right]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}+$$

$$30\,C\,\mathrm{Cos}\left[\frac{3 c}{2}\right]\sqrt{\left(1+e^{2 i d x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2 i d x}\right)\mathrm{Sin}[c]}\,\mathrm{Sin}\left[\frac{3 d x}{2}\right]+$$

$$112\sqrt{2}\,A\,\mathrm{Sec}[c+d x]\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.24\sqrt{2}\,A\,\mathrm{Sec}[c+d x]^2\sqrt{\mathrm{Cos}[c+d x]\left(\mathrm{Cos}[d x]+i\,\mathrm{Sin}[d x]\right)}\,\mathrm{Sin}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d x])^{5/2}\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]^{3/2},\ x,\ 6,\ 0\right\}$$

$$\frac{5\,a^{5/2}(8A+5C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d x]}{\sqrt{\mathrm{Cos}[c+d x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d x]}}\right]\sqrt{\mathrm{Cos}[c+d x]}\,\sqrt{\mathrm{Sec}[c+d x]}}{8\,d}-$$

$$\frac{a^3(24A-49C)\,\mathrm{Sin}[c+d x]}{24\,d\sqrt{a+a\,\mathrm{Cos}[c+d x]}\,\sqrt{\mathrm{Sec}[c+d x]}}-\frac{a^2(8A-3C)\sqrt{a+a\,\mathrm{Cos}[c+d x]}\,\mathrm{Sin}[c+d x]}{4\,d\sqrt{\mathrm{Sec}[c+d x]}}-$$

$$\frac{a(6A-C)\,(a+a\,\mathrm{Cos}[c+d x])^{3/2}\,\mathrm{Sin}[c+d x]}{3\,d\sqrt{\mathrm{Sec}[c+d x]}}+\frac{2A\,(a+a\,\mathrm{Cos}[c+d x])^{5/2}\sqrt{\mathrm{Sec}[c+d x]}\,\mathrm{Sin}[c+d x]}{d}$$

$$\frac{1}{96\,d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}}\,a^2\sqrt{a\,(1+\mathrm{Cos}[c+d\,x])}\;\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(-15\,i\,(8\,A+5\,C)\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]-$$

$$120\,i\,A\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]-$$

$$75\,i\,C\,\mathrm{Cos}\left[c+\frac{3\,d\,x}{2}\right]\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]+30\,i\,(8\,A+5\,C)$$

$$\mathrm{ArcTanh}\left[\left(\mathrm{Cos}\left[\frac{c}{2}\right]+i\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right]\mathrm{Cos}[c+d\,x]\left(\mathrm{Cos}\left[\frac{d\,x}{2}\right]+i\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)-$$

$$120\,A\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$75\,C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$144\sqrt{2}\,A\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]-94\sqrt{2}\,C\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]+48\sqrt{2}\,A\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{3}{2}(c+d\,x)\right]+$$

$$128\sqrt{2}\,C\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{3}{2}(c+d\,x)\right]+30\sqrt{2}\,C\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}$$

$$\mathrm{Sin}\left[\frac{5}{2}(c+d\,x)\right]+4\sqrt{2}\,C\sqrt{\mathrm{Cos}[c+d\,x]\,(\mathrm{Cos}[d\,x]+i\,\mathrm{Sin}[d\,x])}\;\mathrm{Sin}\left[\frac{7}{2}(c+d\,x)\right]+$$

$$120\,A\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$75\,C\,\mathrm{Log}\left[2\left(e^{i\,d\,x}\,\mathrm{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\mathrm{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\mathrm{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\mathrm{Sin}[c]}\right)\right]\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}\,(304\,A+163\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{64\,d}+\frac{a^3\,(432\,A+299\,C)\,\mathrm{Sin}[c+d\,x]}{192\,d\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{a^2\,(16\,A+17\,C)\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{32\,d\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\,a\,C\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{24\,d\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{C\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{4\,d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{384\sqrt{2}\,d\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\,a^2\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-3\,i\,(304\,A+163\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(304\,A+163\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$912\,A\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$489\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$960\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+800\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+96\sqrt{2}\,A\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$270\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+80\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\left.\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]+12\sqrt{2}\,C\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{7}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 7,\ 0\right\}$$

$$\frac{a^{5/2}\,(400\,A+283\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{128\,d}+$$
$$\frac{a^3\,(1040\,A+787\,C)\,\text{Sin}[c+d\,x]}{960\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(80\,A+79\,C)\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$
$$\frac{a\,C\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{8\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{C\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^3\,(400\,A+283\,C)\,\text{Sin}[c+d\,x]}{128\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3840\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\,\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\Bigg(-15\,i\,(400\,A+283\,C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+$$
$$15\,i\,(400\,A+283\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$6000\,A\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$4245\,C\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$9920\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$7168\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$2400\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+2550\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{3}{2}(c+d x)\right]+320\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+$$
$$976\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+300\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{7}{2}(c+d x)\right]+48\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{9}{2}(c+d x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d x])^{5/2}\left(A+C\,\text{Cos}[c+d x]^2\right)}{\text{Sec}[c+d x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{a^{5/2}\,(1304\,A+1015\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{512\,d}+\frac{a^3\,(136\,A+109\,C)\,\text{Sin}[c+d x]}{192\,d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{a^2\,(24\,A+23\,C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{96\,d\,\text{Sec}[c+d x]^{5/2}}+\frac{a\,C\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{12\,d\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{C\,(a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sin}[c+d x]}{6\,d\,\text{Sec}[c+d x]^{5/2}}+\frac{a^3\,(1304\,A+1015\,C)\,\text{Sin}[c+d x]}{768\,d\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}}+\frac{a^3\,(1304\,A+1015\,C)\,\text{Sin}[c+d x]}{512\,d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{3072\sqrt{2}\,d\sqrt{\text{Sec}[c+d x]}\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}}\,a^2\sqrt{a\,(1+\text{Cos}[c+d x])}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]$$
$$\left(-3\,i\,(1304\,A+1015\,C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$3\,i\,(1304\,A+1015\,C)\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{d x}{2}\right]+i\,\text{Sin}\left[\frac{d x}{2}\right]\right)+$$
$$3912\,A\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$3045\,C\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{d x}{2}\right]+$$
$$6400\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$
$$5152\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+2160\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{3}{2}(c+d x)\right]+1974\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+$$
$$640\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]+832\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\text{Sin}\left[\frac{5}{2}(c+d x)\right]+96\sqrt{2}\,A\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]+$$
$$316\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{7}{2}(c+d x)\right]+96\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}$$
$$\left.\text{Sin}\left[\frac{9}{2}(c+d x)\right]+16\sqrt{2}\,C\sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}\,\text{Sin}\left[\frac{11}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}}{\sqrt{a+a\,\text{Cos}[c+d x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{\sqrt{a}\,d}+$$
$$\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}{\sqrt{a}\,d}+\frac{C\,\text{Sin}[c+d x]}{d\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{2\sqrt{a\,(1+\text{Cos}[c+d x])}}$$
$$\text{Cos}\left[\frac{1}{2}(c+d x)\right]\left(-\frac{1}{d}\,i\sqrt{2}\,e^{-\frac{1}{2}i(c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\sqrt{1+e^{2 i(c+d x)}}\left(-i\,C\,d\,x-C\,\text{ArcSinh}\left[e^{i(c+d x)}\right]+2\sqrt{2}\,(A+C)\,\text{Log}\left[\right.\right.\right.$$
$$\left.2\sqrt{2}\,(A+C)\left(1+e^{i(c+d x)}\right)\right]+C\,\text{Log}\left[-2\,d\left(1+\sqrt{1+e^{2 i(c+d x)}}\right)\right]-2\sqrt{2}\,A\,\text{Log}\left[d\left(1-e^{i(c+d x)}+\sqrt{2}\sqrt{1+e^{2 i(c+d x)}}\right)\right]-$$
$$\left.\left.2\sqrt{2}\,C\,\text{Log}\left[d\left(1-e^{i(c+d x)}+\sqrt{2}\sqrt{1+e^{2 i(c+d x)}}\right)\right]\right)+\frac{2\,C\sqrt{\text{Sec}[c+d x]}\left(-\text{Sin}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{3}{2}(c+d x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d x]^2}{\sqrt{a+a\,\text{Cos}[c+d x]}\,\sqrt{\text{Sec}[c+d x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{(8A+7C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{4\sqrt{a}\,d}-$$

$$\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{\sqrt{a}\,d}+$$

$$\frac{C\,\text{Sin}[c+dx]}{2d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}-\frac{C\,\text{Sin}[c+dx]}{4d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{16d\sqrt{a\,(1+\text{Cos}[c+dx])}}$$

$$e^{-3i(c+dx)}\left(1+e^{i(c+dx)}\right)\Big(i\,C-2i\,C\,e^{i(c+dx)}+3i\,C\,e^{2i(c+dx)}-3i\,C\,e^{3i(c+dx)}+2i\,C\,e^{4i(c+dx)}-i\,C\,e^{5i(c+dx)}+$$
$$8A\,d\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x+7C\,d\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x-i\,(8A+7C)\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+$$
$$8i\sqrt{2}\,(A+C)\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]+8i\,A\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+$$
$$7i\,C\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-8i\sqrt{2}\,A\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}$$
$$\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-7i\sqrt{2}\,C\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$i\sqrt{2}\,C\,e^{2i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\Big)\sqrt{\text{Sec}[c+dx]}$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{(8A+9C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{8\sqrt{a}\,d}+$$

$$\frac{\sqrt{2}\,(A+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{\sqrt{a}\,d}+\frac{C\,\text{Sin}[c+dx]}{3d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}}-$$

$$\frac{C\,\text{Sin}[c+dx]}{12d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{(8A+7C)\,\text{Sin}[c+dx]}{8d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$-\frac{1}{96d\sqrt{a\,(1+\text{Cos}[c+dx])}}\,i\,e^{-4i(c+dx)}\left(1+e^{i(c+dx)}\right)$$
$$\Big(-2C+3C\,e^{i(c+dx)}-24A\,e^{2i(c+dx)}-28C\,e^{2i(c+dx)}+24A\,e^{3i(c+dx)}+29C\,e^{3i(c+dx)}-24A\,e^{4i(c+dx)}-29C\,e^{4i(c+dx)}+24A\,e^{5i(c+dx)}+$$
$$28C\,e^{5i(c+dx)}-3C\,e^{6i(c+dx)}+2C\,e^{7i(c+dx)}-24i\,A\,d\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x-27i\,C\,d\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,x-$$
$$3\,(8A+9C)\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+48\sqrt{2}\,(A+C)\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[\sqrt{2}\left(1+e^{i(c+dx)}\right)\right]+$$
$$24A\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]+27C\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$24\sqrt{2}\,A\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$27\sqrt{2}\,C\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$24\sqrt{2}\,A\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]-$$
$$21\sqrt{2}\,C\,e^{3i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\sqrt{1+e^{2i(c+dx)}}\right)\right]\Big)\sqrt{\text{Sec}[c+dx]}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{(7\,A-C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-$$

$$\frac{(A+C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A+C)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$

$$\left(\frac{i\,(7\,A-C)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\mathrm{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\left.\frac{(4\,A+(5\,A+C)\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$-\frac{3\,C\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a^{3/2}\,d}+$$

$$\frac{(A+9\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-$$

$$\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(A+3\,C)\,\mathrm{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{2\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}$$

$$\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-\frac{1}{d}\,i\,\sqrt{2}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(-6\,i\,C\,d\,x-6\,C\,\mathrm{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.\right.$$

$$\sqrt{2}\,(A+9\,C)\,\mathrm{Log}\left[\sqrt{2}\,(A+9\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+6\,C\,\mathrm{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$

$$\left.\sqrt{2}\,A\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-9\,\sqrt{2}\,C\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{(A+3\,C+2\,C\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(8\,A+19\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^{3/2}\,d}-$$

$$\frac{(5\,A+13\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(A+2\,C)\,\mathrm{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}}-\frac{(2\,A+7\,C)\,\mathrm{Sin}[c+d\,x]}{4\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,(a\,(1+\mathrm{Cos}[c+d\,x]))^{3/2}}\,e^{-\frac{1}{2}i\,(c+d\,x)}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-\frac{i\,(8\,A+19\,C)\,\left(1+e^{i\,(c+d\,x)}\right)^2\,\mathrm{ArcSinh}\left[e^{i\,(c+d\,x)}\right]}{2\,\sqrt{2}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}+4\,(A+C)\,e^{\frac{1}{2}i\,(c+d\,x)}\,\mathrm{Sec}\left[\frac{c}{2}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+$$

$$e^{-\frac{5}{2}i\,(c+d\,x)}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\Big(i\,C-6\,i\,C\,e^{i\,(c+d\,x)}-4\,i\,A\,e^{2\,i\,(c+d\,x)}+3\,i\,C\,e^{2\,i\,(c+d\,x)}+4\,i\,A\,e^{3\,i\,(c+d\,x)}-3\,i\,C\,e^{3\,i\,(c+d\,x)}+$$

$$6\,i\,C\,e^{4\,i\,(c+d\,x)}-i\,C\,e^{5\,i\,(c+d\,x)}+8\,A\,d\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+19\,C\,d\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+$$

$$2\,i\,\sqrt{2}\,(5\,A+13\,C)\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,(8\,A+19\,C)\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}$$

$$\mathrm{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-8\,i\,\sqrt{2}\,A\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$

$$19\,i\,\sqrt{2}\,C\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$

$$2\,i\,\sqrt{2}\,A\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$

$$7\,i\,\sqrt{2}\,C\,e^{2\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Big)\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+4\,(A+C)\,e^{\frac{1}{2}i\,(c+d\,x)}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{c}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{(19\,A+3\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A+C)\,\mathrm{Sin}[c+d\,x]}{4\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{(9\,A-7\,C)\,\mathrm{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$

$$\left(-\frac{i\,(19\,A+3\,C)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$

$$\left.\frac{(13\,A-3\,C+(9\,A-7\,C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{4\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{5/2}\,d}+$$

$$\frac{(5\,A-43\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(5\,A-11\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d}\,\sqrt{2}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(32\,C\,d\,x-32\,i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\right.\right.$$

$$\sqrt{2}\,(5\,A-43\,C)\,\text{Log}\left[\sqrt{2}\,(5\,A-43\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,C\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$\left.5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{(5\,A-11\,C+(A-15\,C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\sqrt{\text{Sec}[c+d\,x]}\,\left(-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{2\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{5\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{5/2}\,d}+$$

$$\frac{(3\,A+115\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{(A-15\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A+35\,C)\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-\frac{1}{d}\,i\,\sqrt{2}\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(-80\,i\,C\,d\,x-80\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{2}\,(3\,A+115\,C)\,\text{Log}\left[\sqrt{2}\,(3\,A+115\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+80\,C\,\text{Log}\left[-d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-3\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-115\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{1}{2\,d}\,(3\,A+43\,C+(7\,A+55\,C)\,\text{Cos}[c+d\,x]+8\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\sqrt{\text{Sec}[c+d\,x]}\left(-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$\frac{(8\,A+39\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{4\,a^{5/2}\,d}-\frac{(43\,A+219\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{7/2}}-\frac{(3\,A+19\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{(7\,A+31\,C)\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(11\,A+63\,C)\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$4\sqrt{2}\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{1}{\sqrt{2}\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}39\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{11\,i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+$$

$$\frac{63\,i\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(-\frac{3\,(5\,A+3\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{2\,d}-\frac{10\,C\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}+\frac{C\,\text{Cos}\left[\frac{5\,d\,x}{2}\right]\text{Sin}\left[\frac{5\,c}{2}\right]}{d}-\frac{3\,(5\,A+3\,C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+\right.$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-A\,\text{Sin}\left[\frac{d\,x}{2}\right]-C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{2\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+35\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{4\,d}-$$

$$\left.\frac{10\,C\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}+\frac{C\,\text{Cos}\left[\frac{5\,c}{2}\right]\text{Sin}\left[\frac{5\,d\,x}{2}\right]}{d}+\frac{(19\,A+35\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{(A+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$C\,x+\frac{B\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}$$

$$\frac{C\,d\,x-B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{C\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{B\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{C\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+B\,\text{Tan}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2,\ x,\ 4,\ 0\right\}$$

$$(a B + a C)\, x + \frac{a B \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{d} + \frac{a C \operatorname{Sin}[c + d x]}{d}$$

$$\frac{a \left(B d x + C d x - B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + C \operatorname{Sin}[c + d x]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \operatorname{Cos}[c + d x]) \left(B \operatorname{Cos}[c + d x] + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^3, x, 4, 0\right\}$$

$$a C x + \frac{a (B + C) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{d} + \frac{a B \operatorname{Tan}[c + d x]}{d}$$

$$\frac{1}{d} a \left(C d x - (B + C) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + C \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + B \operatorname{Tan}[c + d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \operatorname{Cos}[c + d x]) \left(B \operatorname{Cos}[c + d x] + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^4, x, 5, 0\right\}$$

$$\frac{a (B + 2 C) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{2 d} + \frac{a (B + C) \operatorname{Tan}[c + d x]}{d} + \frac{a B \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 d}$$

$$-\frac{1}{4 d} a \operatorname{Sec}[c + d x]^2 \left(B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + 2 C \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + (B + 2 C) \operatorname{Cos}[2 (c + d x)] \left(\operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right]\right) - B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 2 C \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 2 B \operatorname{Sin}[c + d x] - 2 B \operatorname{Sin}[2 (c + d x)] - 2 C \operatorname{Sin}[2 (c + d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \operatorname{Cos}[c + d x]) \left(B \operatorname{Cos}[c + d x] + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^5, x, 6, 0\right\}$$

$$\frac{a (B + C) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{2 d} + \frac{a (2 B + 3 C) \operatorname{Tan}[c + d x]}{3 d} + \frac{a (B + C) \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 d} + \frac{a B \operatorname{Sec}[c + d x]^2 \operatorname{Tan}[c + d x]}{3 d}$$

$$-\frac{1}{24 d} a \operatorname{Sec}[c + d x]^3 \left(9 (B + C) \operatorname{Cos}[c + d x] \left(\operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right]\right) + 3 (B + C) \operatorname{Cos}[3 (c + d x)] \left(\operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right]\right) - 4 (4 B + 3 C + 3 (B + C) \operatorname{Cos}[c + d x] + (2 B + 3 C) \operatorname{Cos}[2 (c + d x)]) \operatorname{Sin}[c + d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \operatorname{Cos}[c + d x]) \left(B \operatorname{Cos}[c + d x] + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^6, x, 7, 0\right\}$$

$$\frac{a (3 B + 4 C) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{8 d} + \frac{2 a (B + C) \operatorname{Tan}[c + d x]}{3 d} + \frac{a (3 B + 4 C) \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{8 d} + \frac{a (B + C) \operatorname{Sec}[c + d x]^2 \operatorname{Tan}[c + d x]}{3 d} + \frac{a B \operatorname{Sec}[c + d x]^3 \operatorname{Tan}[c + d x]}{4 d}$$

$$-\frac{1}{192\,d}\,a\,\text{Sec}[c+d\,x]^4\left(27\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+36\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$12\,(3\,B+4\,C)\,\text{Cos}[2\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$3\,(3\,B+4\,C)\,\text{Cos}[4\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$27\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-36\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$66\,B\,\text{Sin}[c+d\,x]-24\,C\,\text{Sin}[c+d\,x]-64\,B\,\text{Sin}[2\,(c+d\,x)]-64\,C\,\text{Sin}[2\,(c+d\,x)]-$$
$$\left.18\,B\,\text{Sin}[3\,(c+d\,x)]-24\,C\,\text{Sin}[3\,(c+d\,x)]-16\,B\,\text{Sin}[4\,(c+d\,x)]-16\,C\,\text{Sin}[4\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$a^2\,C\,x+\frac{a^2\,(3\,B+4\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{a^2\,(3\,B+2\,C)\,\text{Tan}[c+d\,x]}{2\,d}+\frac{a\,B\,(a+a\,\text{Sec}[c+d\,x])\,\text{Tan}[c+d\,x]}{2\,d}$$
$$\frac{1}{4\,d}\,a^2\left(4\,c\,C+4\,C\,d\,x-2\,(3\,B+4\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$6\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+8\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.\frac{B}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{B}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+4\,(2\,B+C)\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{a^2\,(7\,B+8\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{a^2\,(4\,B+5\,C)\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a^2\,(7\,B+8\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a^2\,(5\,B+4\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{12\,d}+\frac{a\,B\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$
$$-\frac{1}{192\,d}\,a^2\,\text{Sec}[c+d\,x]^4\left(63\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+72\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$12\,(7\,B+8\,C)\,\text{Cos}[2\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$3\,(7\,B+8\,C)\,\text{Cos}[4\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$63\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-72\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$90\,B\,\text{Sin}[c+d\,x]-48\,C\,\text{Sin}[c+d\,x]-128\,B\,\text{Sin}[2\,(c+d\,x)]-112\,C\,\text{Sin}[2\,(c+d\,x)]-$$
$$\left.42\,B\,\text{Sin}[3\,(c+d\,x)]-48\,C\,\text{Sin}[3\,(c+d\,x)]-32\,B\,\text{Sin}[4\,(c+d\,x)]-40\,C\,\text{Sin}[4\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^7,\ x,\ 8,\ 0\right\}$$

$$\frac{a^2 (6 B + 7 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{8 d} + \frac{2 a^2 (9 B + 10 C) \text{Tan}[c + d x]}{15 d} + \frac{a^2 (6 B + 7 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{8 d} + \frac{a^2 (9 B + 10 C) \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{15 d} + \frac{a^2 (6 B + 5 C) \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{20 d} + \frac{a B (a + a \text{Cos}[c + d x]) \text{Sec}[c + d x]^4 \text{Tan}[c + d x]}{5 d}$$

$$-\frac{1}{1920 d} a^2 \text{Sec}[c + d x]^5 \Big(90 B \text{Cos}[5 (c + d x)] \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] + 105 C \text{Cos}[5 (c + d x)] \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] + 150 (6 B + 7 C) \text{Cos}[c + d x] \Big(\text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] - \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big]\Big) + 75 (6 B + 7 C) \text{Cos}[3 (c + d x)] \Big(\text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] - \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big]\Big) - 90 B \text{Cos}[5 (c + d x)] \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] - 105 C \text{Cos}[5 (c + d x)] \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] - 960 B \text{Sin}[c + d x] - 640 C \text{Sin}[c + d x] - 840 B \text{Sin}[2 (c + d x)] - 660 C \text{Sin}[2 (c + d x)] - 720 B \text{Sin}[3 (c + d x)] - 800 C \text{Sin}[3 (c + d x)] - 180 B \text{Sin}[4 (c + d x)] - 210 C \text{Sin}[4 (c + d x)] - 144 B \text{Sin}[5 (c + d x)] - 160 C \text{Sin}[5 (c + d x)]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a + a \text{Cos}[c + d x])^3 (B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2) \text{Sec}[c + d x]^5, x, 6, 0\}$$

$$a^3 C x + \frac{a^3 (5 B + 7 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{2 d} + \frac{5 a^3 (B + C) \text{Tan}[c + d x]}{2 d} + \frac{a^2 (5 B + 3 C) (a + a \text{Sec}[c + d x]) \text{Tan}[c + d x]}{6 d} + \frac{a B (a + a \text{Sec}[c + d x])^2 \text{Tan}[c + d x]}{3 d}$$

$$\frac{1}{24 d} a^3 \text{Sec}[c + d x]^3 \Big(9 \text{Cos}[c + d x] \Big(2 C (c + d x) - (5 B + 7 C) \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] + (5 B + 7 C) \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big]\Big) + 3 \text{Cos}[3 (c + d x)] \Big(2 C (c + d x) - (5 B + 7 C) \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] - \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big] + (5 B + 7 C) \text{Log}\Big[\text{Cos}\Big[\frac{1}{2} (c + d x)\Big] + \text{Sin}\Big[\frac{1}{2} (c + d x)\Big]\Big]\Big) + 4 (13 B + 9 C + 3 (3 B + C) \text{Cos}[c + d x] + (11 B + 9 C) \text{Cos}[2 (c + d x)]) \text{Sin}[c + d x]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a + a \text{Cos}[c + d x])^3 (B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2) \text{Sec}[c + d x]^6, x, 7, 0\}$$

$$\frac{5 a^3 (3 B + 4 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{8 d} + \frac{5 a^3 (3 B + 4 C) \text{Tan}[c + d x]}{6 d} + \frac{5 a^3 (3 B + 4 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{24 d} + \frac{a (3 B + 4 C) (a + a \text{Sec}[c + d x])^2 \text{Tan}[c + d x]}{12 d} + \frac{B (a + a \text{Sec}[c + d x])^3 \text{Tan}[c + d x]}{4 d}$$

$$-\frac{1}{192\,d}a^3\,\text{Sec}[c+d\,x]^4\left(135\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+180\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$60\,(3\,B+4\,C)\,\text{Cos}[2\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+$$
$$15\,(3\,B+4\,C)\,\text{Cos}[4\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)-$$
$$135\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-180\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$
$$138\,B\,\text{Sin}[c+d\,x]-72\,C\,\text{Sin}[c+d\,x]-240\,B\,\text{Sin}[2\,(c+d\,x)]-208\,C\,\text{Sin}[2\,(c+d\,x)]-$$
$$\left.90\,B\,\text{Sin}[3\,(c+d\,x)]-72\,C\,\text{Sin}[3\,(c+d\,x)]-72\,B\,\text{Sin}[4\,(c+d\,x)]-88\,C\,\text{Sin}[4\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^7,\ x,\ 8,\ 0\right\}$$

$$\frac{a^3\,(13\,B+15\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{a^3\,(38\,B+45\,C)\,\text{Tan}[c+d\,x]}{15\,d}+$$
$$\frac{a^3\,(13\,B+15\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+\frac{a^3\,(43\,B+45\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{60\,d}+$$
$$\frac{a^2\,(7\,B+5\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{20\,d}+\frac{a\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

$$-\frac{1}{1920\,d}a^3\,\text{Sec}[c+d\,x]^5\left(195\,B\,\text{Cos}[5\,(c+d\,x)]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$225\,C\,\text{Cos}[5\,(c+d\,x)]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+$$
$$150\,(13\,B+15\,C)\,\text{Cos}[c+d\,x]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+$$
$$75\,(13\,B+15\,C)\,\text{Cos}[3\,(c+d\,x)]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)-$$
$$195\,B\,\text{Cos}[5\,(c+d\,x)]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$
$$225\,C\,\text{Cos}[5\,(c+d\,x)]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-1600\,B\,\text{Sin}[c+d\,x]-1200\,C\,\text{Sin}[c+d\,x]-$$
$$1500\,B\,\text{Sin}[2\,(c+d\,x)]-1140\,C\,\text{Sin}[2\,(c+d\,x)]-1520\,B\,\text{Sin}[3\,(c+d\,x)]-1560\,C\,\text{Sin}[3\,(c+d\,x)]-$$
$$\left.390\,B\,\text{Sin}[4\,(c+d\,x)]-450\,C\,\text{Sin}[4\,(c+d\,x)]-304\,B\,\text{Sin}[5\,(c+d\,x)]-360\,C\,\text{Sin}[5\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 4,\ 0\right\}$$

$$\frac{(B-C)\,x}{a}+\frac{C\,\text{Sin}[c+d\,x]}{a\,d}-\frac{(B-C)\,\text{Sin}[c+d\,x]}{a\,d\,(1+\text{Cos}[c+d\,x])}$$
$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(2\,(B-C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+\right.$$
$$\left.2\,(B-C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]-4\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$

$$\frac{C\,x}{a}+\frac{(B-C)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sec}\left[\frac{c}{2}\right]\left(C\,d\,x\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]+C\,d\,x\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]+2\,(B-C)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{a\,d\,(1+\mathrm{Cos}[c+d\,x])}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 3,\ 0\right\}$$

$$\frac{B\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a\,d}-\frac{(B-C)\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{a\,d\,(1+\mathrm{Cos}[c+d\,x])}$$

$$\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sec}\left[\frac{c}{2}\right]\left(B\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+B\,\mathrm{Cos}\left[c+\frac{d\,x}{2}\right]\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+2\,(B-C)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$-\frac{(B-C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a\,d}+\frac{(2\,B-C)\,\mathrm{Tan}[c+d\,x]}{a\,d}-\frac{(B-C)\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a\,d\,(1+\mathrm{Cos}[c+d\,x])\,(B+C\,\mathrm{Cos}[c+d\,x])}$$

$$2\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Cos}[c+d\,x]\,(C+B\,\mathrm{Sec}[c+d\,x])\left((B-C)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-(B-C)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\frac{2\,(B+2\,(B-C)\,\mathrm{Cos}[c])\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sin}\left[\frac{c}{2}\right]}{\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Cos}\left[\frac{5\,c}{2}\right]}+(B-C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\frac{B\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+\frac{B\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$\frac{(3\,B-2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a\,d}-\frac{2\,(B-C)\,\mathrm{Tan}[c+d\,x]}{a\,d}+\frac{(3\,B-2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}-\frac{(B-C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(4\,(-B+C)\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left((-6\,B+4\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+6\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-4\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-4\,(B-C)\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]+\frac{B}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{B}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^5}{a+a\,\text{Cos}[c+d\,x]},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,(B-C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a\,d}+\frac{2\,(4\,B-3\,C)\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{3\,(B-C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a\,d}+\frac{(4\,B-3\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,a\,d}-\frac{(B-C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(144\,(B-C)\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\left(6\,(B+C)\,\text{Sin}\left[\frac{d\,x}{2}\right]+3\,(13\,B-9\,C)\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-24\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+12\,C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-6\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+6\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-24\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+24\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+21\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+9\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+9\,C\,\text{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+7\,B\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]-3\,C\,\text{Sin}\left[c+\frac{5\,d\,x}{2}\right]+B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+3\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-3\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+9\,C\,\text{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+16\,B\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-12\,C\,\text{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+10\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-6\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+6\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-6\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$\frac{(7\,B-10\,C)\,x}{2\,a^2}-\frac{8\,(2\,B-3\,C)\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(7\,B-10\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^2\,d}-\frac{4\,(2\,B-3\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(B-C)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(7\,B-10\,C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(36\,(7\,B-10\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+36\,(7\,B-10\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+84\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-120\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+84\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-120\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-381\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+516\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+147\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-156\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-239\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+342\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-63\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+118\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-15\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+30\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-15\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+30\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-3\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-3\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{(4\,B-7\,C)\,x}{2\,a^2}+\frac{2\,(5\,B-8\,C)\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(4\,B-7\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^2\,d}+\frac{(B-C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(5\,B-8\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(-36\,(4\,B-7\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-36\,(4\,B-7\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]-48\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+84\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-48\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+84\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+264\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-381\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-120\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+147\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+164\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-239\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+36\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-63\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+12\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-15\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+12\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-15\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 3,\ 0\right\}$$

$$\frac{C\,x}{a^2}-\frac{(B-C)\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(2\,B-5\,C)\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{24\,a^2\,d}\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\left(9\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+9\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+3\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+3\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+6\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-18\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+12\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+4\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-10\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 4,\ 0\right\}$$

$$\frac{B\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^2\,d}-\frac{(B-C)\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(4\,B-C)\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$-\frac{1}{6\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]$$
$$\left(3\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+3\,B\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$9\,B\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$9\,B\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$3\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-3\,B\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.18\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-6\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+8\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-2\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$
$$-\frac{(2\,B-C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^2\,d}+\frac{2\,(5\,B-2\,C)\,\text{Tan}[c+d\,x]}{3\,a^2\,d}-\frac{(B-C)\,\text{Tan}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(2\,B-C)\,\text{Tan}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$
$$\frac{1}{3\,a^2\,d\,(1+\text{Cos}[c+d\,x])^2\,(B+C\,\text{Cos}[c+d\,x])}$$
$$2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Cos}[c+d\,x]\,(C+B\,\text{Sec}[c+d\,x])\,\left((B-C)\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+2\,(7\,B-4\,C)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+\right.$$
$$6\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\left((2\,B-C)\,\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\left.B\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]\right)+(B-C)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{c}{2}\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^4}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$
$$\frac{(7\,B-4\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,a^2\,d}-\frac{2\,(8\,B-5\,C)\,\text{Tan}[c+d\,x]}{3\,a^2\,d}+$$
$$\frac{(7\,B-4\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,a^2\,d}-\frac{(B-C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(8\,B-5\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{48 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \left(96 (7 B-4 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+ \text{Sec}\left[\frac{c}{2}\right] \text{Sec}[c] \text{Sec}[c+d x]^2 \left(-14 (B-C) \text{Sin}\left[\frac{d x}{2}\right]+(97 B-64 C) \text{Sin}\left[\frac{3 d x}{2}\right]-126 B \text{Sin}\left[c-\frac{d x}{2}\right]+ 84 C \text{Sin}\left[c-\frac{d x}{2}\right]+42 B \text{Sin}\left[c+\frac{d x}{2}\right]-42 C \text{Sin}\left[c+\frac{d x}{2}\right]-98 B \text{Sin}\left[2 c+\frac{d x}{2}\right]+56 C \text{Sin}\left[2 c+\frac{d x}{2}\right]- 3 B \text{Sin}\left[c+\frac{3 d x}{2}\right]+6 C \text{Sin}\left[c+\frac{3 d x}{2}\right]+37 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-34 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-63 B \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+ 36 C \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+75 B \text{Sin}\left[c+\frac{5 d x}{2}\right]-48 C \text{Sin}\left[c+\frac{5 d x}{2}\right]+15 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-6 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+ 39 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-30 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-21 B \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+12 C \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+32 B \text{Sin}\left[2 c+\frac{7 d x}{2}\right]- 20 C \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+12 B \text{Sin}\left[3 c+\frac{7 d x}{2}\right]-6 C \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+20 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-14 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^3 \left(B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+a \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$

$$-\frac{(6 B-13 C) x}{2 a^3}+\frac{8 (9 B-19 C) \text{Sin}[c+d x]}{15 a^3 d}-\frac{(6 B-13 C) \text{Cos}[c+d x] \text{Sin}[c+d x]}{2 a^3 d}+ \frac{(B-C) \text{Cos}[c+d x]^4 \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3}+\frac{(6 B-11 C) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2}+\frac{4 (9 B-19 C) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{15 a^2 d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{480 a^3 d (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}\left[\frac{c}{2}\right] \left(-600 (6 B-13 C) d x \text{Cos}\left[\frac{d x}{2}\right]-600 (6 B-13 C) d x \text{Cos}\left[c+\frac{d x}{2}\right]-1800 B d x \text{Cos}\left[c+\frac{3 d x}{2}\right]+3900 C d x \text{Cos}\left[c+\frac{3 d x}{2}\right]- 1800 B d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+3900 C d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]-360 B d x \text{Cos}\left[2 c+\frac{5 d x}{2}\right]+780 C d x \text{Cos}\left[2 c+\frac{5 d x}{2}\right]- 360 B d x \text{Cos}\left[3 c+\frac{5 d x}{2}\right]+780 C d x \text{Cos}\left[3 c+\frac{5 d x}{2}\right]+7020 B \text{Sin}\left[\frac{d x}{2}\right]-12760 C \text{Sin}\left[\frac{d x}{2}\right]-4500 B \text{Sin}\left[c+\frac{d x}{2}\right]+ 7560 C \text{Sin}\left[c+\frac{d x}{2}\right]+4860 B \text{Sin}\left[c+\frac{3 d x}{2}\right]-9230 C \text{Sin}\left[c+\frac{3 d x}{2}\right]-900 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+930 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+ 1452 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-2782 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+300 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-750 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+60 B \text{Sin}\left[3 c+\frac{7 d x}{2}\right]- 105 C \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+60 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-105 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+15 C \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+15 C \text{Sin}\left[5 c+\frac{9 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^2 \left(B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+a \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$

$$\frac{(B-3 C) x}{a^3}-\frac{(7 B-27 C) \text{Sin}[c+d x]}{15 a^3 d}+\frac{(B-C) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3}+ \frac{(4 B-9 C) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2}-\frac{(B-3 C) \text{Sin}[c+d x]}{a^2 d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{120\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}\left[\frac{c}{2}\right]$$
$$\left(300\,(B-3\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+300\,(B-3\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+150\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-450\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+\right.$$
$$150\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-450\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+30\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-90\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$30\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-90\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-740\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+1755\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+540\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$
$$1125\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-460\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+1215\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+180\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-225\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$\left.128\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+363\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+75\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]\,\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,5,\,0\right\}$$

$$\frac{C\,x}{a^3}+\frac{(B-C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(2\,B-7\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{2\,(B-11\,C)\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d}\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5$$
$$\left(150\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+150\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+75\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+75\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+15\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+\right.$$
$$15\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+80\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-370\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-60\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+270\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+40\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$\left.230\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-30\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+90\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+14\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-64\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$-\frac{(3\,B-C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^3\,d}+\frac{2\,(36\,B-11\,C)\,\text{Tan}[c+d\,x]}{15\,a^3\,d}-$$
$$\frac{(B-C)\,\text{Tan}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(9\,B-4\,C)\,\text{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(3\,B-C)\,\text{Tan}[c+d\,x]}{a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a^3}\left(\frac{8\,(3\,B-C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Cos}[c+d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,(C+B\,\mathrm{Sec}[c+d\,x])}{d\,(1+\mathrm{Cos}[c+d\,x])^3\,(B+C\,\mathrm{Cos}[c+d\,x])}-\right.$$

$$\frac{8\,(3\,B-C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Cos}[c+d\,x]\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,(C+B\,\mathrm{Sec}[c+d\,x])}{d\,(1+\mathrm{Cos}[c+d\,x])^3\,(B+C\,\mathrm{Cos}[c+d\,x])}+$$

$$\frac{1}{120\,d\,(1+\mathrm{Cos}[c+d\,x])^3\,(B+C\,\mathrm{Cos}[c+d\,x])}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,(C+B\,\mathrm{Sec}[c+d\,x])\,\left(-255\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+160\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+567\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-167\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-\right.$$

$$600\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+170\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+375\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-170\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-480\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+$$

$$160\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-60\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+75\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+402\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-167\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$225\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+75\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+315\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-95\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+30\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$

$$15\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+240\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-95\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-45\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+15\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$

$$\left.\left.72\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-22\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+15\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+57\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-22\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^4}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 8,\ 0\right\}$$

$$\frac{(13\,B-6\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^3\,d}-\frac{8\,(19\,B-9\,C)\,\mathrm{Tan}[c+d\,x]}{15\,a^3\,d}+\frac{(13\,B-6\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^3\,d}-$$

$$\frac{(B-C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(11\,B-6\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{4\,(19\,B-9\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{15\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{480\,a^3\,d\,(1+\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(1920\,(13\,B-6\,C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\,\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$

$$\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\left((-1235\,B+870\,C)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+5\,(761\,B-366\,C)\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-4329\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+\right.$$

$$2094\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+1989\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-1314\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-3575\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+1650\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$

$$475\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+450\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+2005\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-1230\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-2275\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+$$

$$1050\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2673\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-1278\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+105\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+90\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$

$$1593\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-918\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-975\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+450\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$

$$1325\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-630\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+255\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-60\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$

$$875\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-480\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-195\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+90\,C\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+304\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-$$

$$\left.\left.144\,C\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+90\,B\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-30\,C\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+214\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-114\,C\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x],\ x,\ 3,\ 0\right\}$$

$$B\,x+\frac{A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{C\,\mathrm{Sin}[c+d\,x]}{d}$$

$$\frac{B\,d\,x-A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+C\,\mathrm{Sin}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$C\,x+\frac{B\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}+\frac{A\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{C\,d\,x-B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\mathrm{Tan}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{(A+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{B\,\mathrm{Tan}[c+d\,x]}{d}+\frac{A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}\left(-2\,(A+2\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$2\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+4\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+4\,B\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\right\}$$

$$\frac{(3\,A+4\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{2\,B\,\mathrm{Tan}[c+d\,x]}{3\,d}+$$
$$\frac{(3\,A+4\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{B\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{A\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3 A \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}-\frac{C \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2 d}+\frac{3 A \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+\frac{C \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2 d}+\frac{A}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{3 A}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{C}{4 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{A}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}-\frac{3 A}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{C}{4 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{2 B \operatorname{Tan}[c+d x]}{3 d}+\frac{B \operatorname{Sec}[c+d x]^2 \operatorname{Tan}[c+d x]}{3 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^6, x, 7, 0\right\}$$

$$\frac{3 B \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{8 d}+\frac{2(4 A+5 C) \operatorname{Tan}[c+d x]}{15 d}+\frac{3 B \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{8 d}+\frac{(4 A+5 C) \operatorname{Sec}[c+d x]^2 \operatorname{Tan}[c+d x]}{15 d}+\frac{B \operatorname{Sec}[c+d x]^3 \operatorname{Tan}[c+d x]}{4 d}+\frac{A \operatorname{Sec}[c+d x]^4 \operatorname{Tan}[c+d x]}{5 d}-\frac{3 B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+\frac{3 B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+\frac{B}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{3 B}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{B}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}-\frac{3 B}{16 d\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{8 A \operatorname{Tan}[c+d x]}{15 d}+\frac{2 C \operatorname{Tan}[c+d x]}{3 d}+\frac{4 A \operatorname{Sec}[c+d x]^2 \operatorname{Tan}[c+d x]}{15 d}+\frac{C \operatorname{Sec}[c+d x]^2 \operatorname{Tan}[c+d x]}{3 d}+\frac{A \operatorname{Sec}[c+d x]^4 \operatorname{Tan}[c+d x]}{5 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \operatorname{Cos}[c+d x])\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^2, x, 4, 0\right\}$$

$$(a B+a C) x+\frac{a(A+B) \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{d}-\frac{a(A-C) \operatorname{Sin}[c+d x]}{d}+\frac{A(a+a \operatorname{Cos}[c+d x]) \operatorname{Tan}[c+d x]}{d}$$

$$\frac{1}{d} a\left(B d x+C d x-A \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+A \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+C \operatorname{Cos}[d x] \operatorname{Sin}[c]+C \operatorname{Cos}[c] \operatorname{Sin}[d x]+A \operatorname{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \operatorname{Cos}[c+d x])\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^3, x, 4, 0\right\}$$

$$a C x + \frac{a (A + 2 B + 2 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{2 d} + \frac{a (A + 2 B) \text{Tan}[c + d x]}{2 d} + \frac{A (a + a \text{Sec}[c + d x]) \text{Tan}[c + d x]}{2 d}$$

$$\frac{1}{4} a \left(4 C x - \frac{2 (A + 2 (B + C)) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{d} + \frac{2 A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{d} + \frac{4 B \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{d} + \frac{4 C \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{d} + \frac{A}{d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{A}{d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{4 (A + B) \text{Tan}[c + d x]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \text{Cos}[c + d x]) \left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^5, x, 6, 0\right\}$$

$$\frac{a (3 A + 4 B + 4 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{8 d} + \frac{a (2 A + 2 B + 3 C) \text{Tan}[c + d x]}{3 d} + \frac{a (3 A + 4 B + 4 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{8 d} + \frac{a (A + 4 B) \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{12 d} + \frac{A (a + a \text{Cos}[c + d x]) \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{4 d} - \frac{3 a A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d} - \frac{a B \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{2 d} - \frac{a C \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{2 d} + \frac{3 a A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{8 d} + \frac{a B \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{2 d} + \frac{a C \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{2 d} + \frac{a A}{16 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} + \frac{3 a A}{16 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{a B}{4 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{a C}{4 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{a A}{16 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^4} - \frac{3 a A}{16 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{a B}{4 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{a C}{4 d \left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{2 a A \text{Tan}[c + d x]}{3 d} + \frac{2 a B \text{Tan}[c + d x]}{3 d} + \frac{a C \text{Tan}[c + d x]}{d} + \frac{a A \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{3 d} + \frac{a B \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{3 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \text{Cos}[c + d x])^2 \left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^3, x, 5, 0\right\}$$

$$\left(a^2 B + 2 a^2 C\right) x + \frac{a^2 (3 A + 4 B + 2 C) \text{ArcTanh}[\text{Sin}[c + d x]]}{2 d} - \frac{a^2 (3 A + 2 B - 2 C) \text{Sin}[c + d x]}{2 d} + \frac{a (A + B) (a + a \text{Cos}[c + d x]) \text{Tan}[c + d x]}{d} + \frac{A (a + a \text{Cos}[c + d x])^2 \text{Sec}[c + d x] \text{Tan}[c + d x]}{2 d}$$

$$\frac{1}{16} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(4 (B+2 C) x - \frac{2 (3 A+4 B+2 C) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{2 (3 A+4 B+2 C) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{4 C \text{Cos}[d x] \text{Sin}[c]}{d} + \frac{4 C \text{Cos}[c] \text{Sin}[d x]}{d} + \frac{A}{d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (2 A+B) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} - \frac{A}{d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (2 A+B) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2) \text{Sec}[c+d x]^4, x, 5, 0\}$$

$$a^2 C x + \frac{a^2 (2 A+3 B+4 C) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 d} + \frac{a^2 (2 A+3 B+2 C) \text{Tan}[c+d x]}{2 d} + \frac{a (2 A+3 B) (a+a \text{Sec}[c+d x]) \text{Tan}[c+d x]}{6 d} + \frac{A (a+a \text{Sec}[c+d x])^2 \text{Tan}[c+d x]}{3 d}$$

$$\frac{1}{48} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \left(12 C x - \frac{6 (2 A+3 B+4 C) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{6 (2 A+3 B+4 C) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{d} + \frac{2 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} + \frac{(7 A+3 B) \text{Cos}\left[\frac{c}{2}\right]-(5 A+3 B) \text{Sin}\left[\frac{c}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (5 A+6 B+3 C) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)} + \frac{2 A \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3} - \frac{(7 A+3 B) \text{Cos}\left[\frac{c}{2}\right]+(5 A+3 B) \text{Sin}\left[\frac{c}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2} + \frac{4 (5 A+6 B+3 C) \text{Sin}\left[\frac{d x}{2}\right]}{d \left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right) \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a \text{Cos}[c+d x])^2 (A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2) \text{Sec}[c+d x]^5, x, 6, 0\}$$

$$\frac{a^2 (7 A+8 B+12 C) \text{ArcTanh}[\text{Sin}[c+d x]]}{8 d} + \frac{a^2 (7 A+8 B+12 C) \text{Tan}[c+d x]}{6 d} + \frac{a^2 (7 A+8 B+12 C) \text{Sec}[c+d x] \text{Tan}[c+d x]}{24 d} + \frac{A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{4 d} + \frac{(A+2 B) (a+a \text{Sec}[c+d x])^2 \text{Tan}[c+d x]}{6 d}$$

$$\frac{1}{768\,d}a^2\,(1+\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Big(\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(3\,(15\,A+8\,B+4\,C)\,\text{Sin}[d\,x]+3\,(15\,A+8\,B+4\,C)\,\text{Sin}[2\,c+d\,x]+128\,A\,\text{Sin}[c+2\,d\,x]+136\,B\,\text{Sin}[c+2\,d\,x]+144\,C\,\text{Sin}[c+2\,d\,x]-24\,B\,\text{Sin}[3\,c+2\,d\,x]-48\,C\,\text{Sin}[3\,c+2\,d\,x]+21\,A\,\text{Sin}[2\,c+3\,d\,x]+24\,B\,\text{Sin}[2\,c+3\,d\,x]+12\,C\,\text{Sin}[2\,c+3\,d\,x]+21\,A\,\text{Sin}[4\,c+3\,d\,x]+24\,B\,\text{Sin}[4\,c+3\,d\,x]+12\,C\,\text{Sin}[4\,c+3\,d\,x]+32\,A\,\text{Sin}[3\,c+4\,d\,x]+40\,B\,\text{Sin}[3\,c+4\,d\,x]+48\,C\,\text{Sin}[3\,c+4\,d\,x])-24\left((7\,A+8\,B+12\,C)\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+(4\,A+5\,B+6\,C)\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c]\right)\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2,\,x,\,6,\,0\right\}$$

$$\frac{1}{2}a^3\,(6\,A+7\,B+5\,C)\,x+\frac{a^3\,(3\,A+B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{5\,a^3\,(B+C)\,\text{Sin}[c+d\,x]}{2\,d}-\frac{a^2\,(6\,A-3\,B-5\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{6\,d}-\frac{a\,(3\,A-C)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{3\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{1}{96}a^3\,(1+\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(6\,(6\,A+7\,B+5\,C)\,x-\frac{12\,(3\,A+B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{12\,(3\,A+B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{3\,(4\,A+12\,B+15\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{d}+\frac{3\,(B+3\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{d}+\frac{C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{d}+\frac{3\,(4\,A+12\,B+15\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{d}+\frac{3\,(B+3\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{d}+\frac{C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{d}+\frac{12\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+\frac{12\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\,x,\,6,\,0\right\}$$

$$\left(a^3\,B+3\,a^3\,C\right)x+\frac{a^3\,(5\,A+7\,B+6\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}-\frac{5\,a^3\,(A+B)\,\text{Sin}[c+d\,x]}{2\,d}+\frac{a^2\,(5\,A+6\,B+3\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,(A+B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{8}(B+3C)\,x\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6+$$

$$\frac{(-5A-7B-6C)\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{16\,d}+$$

$$\frac{(5A+7B+6C)\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6}{16\,d}+$$

$$\frac{C\,\mathrm{Cos}[d\,x]\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Sin}[c]}{8\,d}+\frac{C\,\mathrm{Cos}[c]\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Sin}[d\,x]}{8\,d}+$$

$$\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{48\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]+3\,B\,\mathrm{Cos}\left[\frac{c}{2}\right]-8\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-3\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{24\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{48\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(-10\,A\,\mathrm{Cos}\left[\frac{c}{2}\right]-3\,B\,\mathrm{Cos}\left[\frac{c}{2}\right]-8\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]-3\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{24\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\right\}$$

$$a^3\,C\,x+\frac{a^3\,(15A+20B+28C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+$$

$$\frac{5\,a^3\,(3A+4B+4C)\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{a^2\,(15A+20B+12C)\,(a+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{24\,d}+$$

$$\frac{a\,(3A+4B)\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{A\,(a+a\,\mathrm{Sec}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{1}{1536\,d}a^3\,(1+\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^6$$

$$\left(-24\,(15A+20B+28C)\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+\right.$$

$$\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^4\,(72\,C\,d\,x\,\mathrm{Cos}[c]+48\,C\,d\,x\,\mathrm{Cos}[c+2\,d\,x]+48\,C\,d\,x\,\mathrm{Cos}[3\,c+2\,d\,x]+12\,C\,d\,x\,\mathrm{Cos}[3\,c+4\,d\,x]+$$
$$12\,C\,d\,x\,\mathrm{Cos}[5\,c+4\,d\,x]-216\,A\,\mathrm{Sin}[c]-264\,B\,\mathrm{Sin}[c]-216\,C\,\mathrm{Sin}[c]+69\,A\,\mathrm{Sin}[d\,x]+36\,B\,\mathrm{Sin}[d\,x]+$$
$$12\,C\,\mathrm{Sin}[d\,x]+69\,A\,\mathrm{Sin}[2\,c+d\,x]+36\,B\,\mathrm{Sin}[2\,c+d\,x]+12\,C\,\mathrm{Sin}[2\,c+d\,x]+264\,A\,\mathrm{Sin}[c+2\,d\,x]+$$
$$280\,B\,\mathrm{Sin}[c+2\,d\,x]+216\,C\,\mathrm{Sin}[c+2\,d\,x]-24\,A\,\mathrm{Sin}[3\,c+2\,d\,x]-72\,B\,\mathrm{Sin}[3\,c+2\,d\,x]-72\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+$$
$$45\,A\,\mathrm{Sin}[2\,c+3\,d\,x]+36\,B\,\mathrm{Sin}[2\,c+3\,d\,x]+12\,C\,\mathrm{Sin}[2\,c+3\,d\,x]+45\,A\,\mathrm{Sin}[4\,c+3\,d\,x]+36\,B\,\mathrm{Sin}[4\,c+3\,d\,x]+$$
$$\left.12\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+72\,A\,\mathrm{Sin}[3\,c+4\,d\,x]+88\,B\,\mathrm{Sin}[3\,c+4\,d\,x]+72\,C\,\mathrm{Sin}[3\,c+4\,d\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{a^3\,(13\,A+15\,B+20\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{a^3\,(13\,A+15\,B+20\,C)\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a^3\,(13\,A+15\,B+20\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{24\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]}{5\,d}+\frac{a\,(13\,A+15\,B+20\,C)\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{60\,d}+\frac{(3\,A+5\,B)\,(a+a\,\mathrm{Sec}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{20\,d}$$

$$-\frac{1}{15\,360\,d}\,a^3\,(1+\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^6\left(240\,(13\,A+15\,B+20\,C)\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^5\,(80\,(29\,A+30\,B+34\,C)\,\mathrm{Sin}[d\,x]-240\,(3\,A+5\,B+7\,C)\,\mathrm{Sin}[2\,c+d\,x]+750\,A\,\mathrm{Sin}[c+2\,d\,x]+570\,B\,\mathrm{Sin}[c+2\,d\,x]+360\,C\,\mathrm{Sin}[c+2\,d\,x]+750\,A\,\mathrm{Sin}[3\,c+2\,d\,x]+570\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+360\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+1520\,A\,\mathrm{Sin}[2\,c+3\,d\,x]+1680\,B\,\mathrm{Sin}[2\,c+3\,d\,x]+1840\,C\,\mathrm{Sin}[2\,c+3\,d\,x]-120\,B\,\mathrm{Sin}[4\,c+3\,d\,x]-360\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+195\,A\,\mathrm{Sin}[3\,c+4\,d\,x]+225\,B\,\mathrm{Sin}[3\,c+4\,d\,x]+180\,C\,\mathrm{Sin}[3\,c+4\,d\,x]+195\,A\,\mathrm{Sin}[5\,c+4\,d\,x]+225\,B\,\mathrm{Sin}[5\,c+4\,d\,x]+180\,C\,\mathrm{Sin}[5\,c+4\,d\,x]+304\,A\,\mathrm{Sin}[4\,c+5\,d\,x]+360\,B\,\mathrm{Sin}[4\,c+5\,d\,x]+440\,C\,\mathrm{Sin}[4\,c+5\,d\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^4\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3,\ x,\ 7,\ 0\right\}$$

$$\frac{1}{2}\,a^4\,(8\,A+13\,B+12\,C)\,x+\frac{a^4\,(13\,A+8\,B+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}-\frac{5\,a^4\,(A-B-2\,C)\,\mathrm{Sin}[c+d\,x]}{2\,d}-\frac{a^3\,(18\,A+3\,B-8\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{6\,d}-\frac{a^2\,(15\,A+6\,B-2\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sin}[c+d\,x]}{6\,d}+\frac{a\,(2\,A+B)\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{32}(8A+13B+12C)\,x\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8+$$
$$\frac{(-13A-8B-2C)\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8}{32\,d}+$$
$$\frac{(13A+8B+2C)\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8}{32\,d}+$$
$$\frac{(4A+16B+27C)\,\mathrm{Cos}[dx]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[c]}{64\,d}+$$
$$\frac{(B+4C)\,\mathrm{Cos}[2dx]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[2c]}{64\,d}+\frac{C\,\mathrm{Cos}[3dx]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[3c]}{192\,d}+$$
$$\frac{(4A+16B+27C)\,\mathrm{Cos}[c]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[dx]}{64\,d}+$$
$$\frac{(B+4C)\,\mathrm{Cos}[2c]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[2dx]}{64\,d}+\frac{C\,\mathrm{Cos}[3c]\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\mathrm{Sin}[3dx]}{192\,d}+$$
$$\frac{A\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+\frac{(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\left(4A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+B\,\mathrm{Sin}\left[\frac{dx}{2}\right]\right)}{16\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}-$$
$$\frac{A\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8}{64\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+\frac{(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^8\left(4A\,\mathrm{Sin}\left[\frac{dx}{2}\right]+B\,\mathrm{Sin}\left[\frac{dx}{2}\right]\right)}{16\,d\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^4\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^4,\ x,\ 7,\ 0\right\}$$

$$\frac{1}{2}a^4(2A+8B+13C)\,x+\frac{a^4(12A+13B+8C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+dx]]}{2\,d}-\frac{5a^4(2A+B-C)\,\mathrm{Sin}[c+dx]}{2\,d}-$$
$$\frac{a^3(22A+18B+3C)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sin}[c+dx]}{6\,d}+\frac{a^2(16A+15B+6C)\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Tan}[c+dx]}{6\,d}+$$
$$\frac{a(4A+3B)\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{6\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}[c+dx]^2\,\mathrm{Tan}[c+dx]}{3\,d}$$
$$a^4\left(\frac{(2A+8B+13C)\,(c+dx)}{2\,d}+\frac{(-12A-13B-8C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{2\,d}+\right.$$
$$\frac{(12A+13B+8C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]}{2\,d}+\frac{13A+3B}{12\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$
$$\frac{A\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{A\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{6\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$
$$\frac{-13A-3B}{12\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{20A\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]+12B\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]+3C\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}+$$
$$\left.\frac{20A\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]+12B\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]+3C\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{3\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right)}+\frac{(B+4C)\,\mathrm{Sin}[c+dx]}{d}+\frac{C\,\mathrm{Sin}[2(c+dx)]}{4\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 7,\ 0\}$$

$$\left(a^4\,B+4\,a^4\,C\right)x+\frac{a^4\,(35\,A+48\,B+52\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}-\frac{5\,a^4\,(7\,A+8\,B+4\,C)\,\mathrm{Sin}[c+d\,x]}{8\,d}+$$
$$\frac{a^3\,(35\,A+44\,B+36\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{a^2\,(7\,A+8\,B+4\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a\,(A+B)\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{1}{3072\,d}\,a^4\,(1+\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8$$
$$\left(-24\,(35\,A+48\,B+52\,C)\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^4\,(72\,(B+4\,C)\,d\,x\,\mathrm{Cos}[c]+48\,(B+4\,C)\,d\,x\,\mathrm{Cos}[c+2\,d\,x]+48\,B\,d\,x\,\mathrm{Cos}[3\,c+2\,d\,x]+$$
$$192\,C\,d\,x\,\mathrm{Cos}[3\,c+2\,d\,x]+12\,B\,d\,x\,\mathrm{Cos}[3\,c+4\,d\,x]+48\,C\,d\,x\,\mathrm{Cos}[3\,c+4\,d\,x]+12\,B\,d\,x\,\mathrm{Cos}[5\,c+4\,d\,x]+$$
$$48\,C\,d\,x\,\mathrm{Cos}[5\,c+4\,d\,x]-480\,A\,\mathrm{Sin}[c]-480\,B\,\mathrm{Sin}[c]-288\,C\,\mathrm{Sin}[c]+105\,A\,\mathrm{Sin}[d\,x]+48\,B\,\mathrm{Sin}[d\,x]+24\,C\,\mathrm{Sin}[d\,x]+$$
$$105\,A\,\mathrm{Sin}[2\,c+d\,x]+48\,B\,\mathrm{Sin}[2\,c+d\,x]+24\,C\,\mathrm{Sin}[2\,c+d\,x]+544\,A\,\mathrm{Sin}[c+2\,d\,x]+496\,B\,\mathrm{Sin}[c+2\,d\,x]+$$
$$288\,C\,\mathrm{Sin}[c+2\,d\,x]-96\,A\,\mathrm{Sin}[3\,c+2\,d\,x]-144\,B\,\mathrm{Sin}[3\,c+2\,d\,x]-96\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+81\,A\,\mathrm{Sin}[2\,c+3\,d\,x]+$$
$$48\,B\,\mathrm{Sin}[2\,c+3\,d\,x]+30\,C\,\mathrm{Sin}[2\,c+3\,d\,x]+81\,A\,\mathrm{Sin}[4\,c+3\,d\,x]+48\,B\,\mathrm{Sin}[4\,c+3\,d\,x]+30\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+$$
$$160\,A\,\mathrm{Sin}[3\,c+4\,d\,x]+160\,B\,\mathrm{Sin}[3\,c+4\,d\,x]+96\,C\,\mathrm{Sin}[3\,c+4\,d\,x]+6\,C\,\mathrm{Sin}[4\,c+5\,d\,x]+6\,C\,\mathrm{Sin}[6\,c+5\,d\,x])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\}$$

$$a^4\,C\,x+\frac{a^4\,(28\,A+35\,B+48\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{a^4\,(28\,A+35\,B+40\,C)\,\mathrm{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a^3\,(28\,A+35\,B+32\,C)\,(a+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{24\,d}+\frac{a^2\,(28\,A+35\,B+20\,C)\,(a+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{60\,d}+$$
$$\frac{a\,(4\,A+5\,B)\,(a+a\,\mathrm{Sec}[c+d\,x])^3\,\mathrm{Tan}[c+d\,x]}{20\,d}+\frac{A\,(a+a\,\mathrm{Sec}[c+d\,x])^4\,\mathrm{Tan}[c+d\,x]}{5\,d}$$

$$\frac{1}{30\,720\,d}\,a^4\,(1+\mathrm{Cos}[c+d\,x])^4\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^8\left(-240\,(28\,A+35\,B+48\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$240\,(28\,A+35\,B+48\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^5\,(600\,C\,d\,x\,\mathrm{Cos}[d\,x]+600\,C\,d\,x\,\mathrm{Cos}[2\,c+d\,x]+300\,C\,d\,x\,\mathrm{Cos}[2\,c+3\,d\,x]+300\,C\,d\,x\,\mathrm{Cos}[4\,c+3\,d\,x]+$$
$$60\,C\,d\,x\,\mathrm{Cos}[4\,c+5\,d\,x]+60\,C\,d\,x\,\mathrm{Cos}[6\,c+5\,d\,x]+4720\,A\,\mathrm{Sin}[d\,x]+5120\,B\,\mathrm{Sin}[d\,x]+4880\,C\,\mathrm{Sin}[d\,x]-$$
$$1920\,A\,\mathrm{Sin}[2\,c+d\,x]-2880\,B\,\mathrm{Sin}[2\,c+d\,x]-3120\,C\,\mathrm{Sin}[2\,c+d\,x]+1320\,A\,\mathrm{Sin}[c+2\,d\,x]+930\,B\,\mathrm{Sin}[c+2\,d\,x]+$$
$$480\,C\,\mathrm{Sin}[c+2\,d\,x]+1320\,A\,\mathrm{Sin}[3\,c+2\,d\,x]+930\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+480\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+3200\,A\,\mathrm{Sin}[2\,c+3\,d\,x]+$$
$$3520\,B\,\mathrm{Sin}[2\,c+3\,d\,x]+3280\,C\,\mathrm{Sin}[2\,c+3\,d\,x]-120\,A\,\mathrm{Sin}[4\,c+3\,d\,x]-480\,B\,\mathrm{Sin}[4\,c+3\,d\,x]-$$
$$720\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+420\,A\,\mathrm{Sin}[3\,c+4\,d\,x]+405\,B\,\mathrm{Sin}[3\,c+4\,d\,x]+240\,C\,\mathrm{Sin}[3\,c+4\,d\,x]+420\,A\,\mathrm{Sin}[5\,c+4\,d\,x]+$$
$$405\,B\,\mathrm{Sin}[5\,c+4\,d\,x]+240\,C\,\mathrm{Sin}[5\,c+4\,d\,x]+664\,A\,\mathrm{Sin}[4\,c+5\,d\,x]+800\,B\,\mathrm{Sin}[4\,c+5\,d\,x]+800\,C\,\mathrm{Sin}[4\,c+5\,d\,x])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+a\,\mathrm{Cos}[c+d\,x])^4\,(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^7,\ x,\ 8,\ 0\}$$

$$\frac{7 a^4 (7 A+8 B+10 C) \text{ArcTanh}[\text{Sin}[c+d x]]}{16 d}+\frac{7 a^4 (7 A+8 B+10 C) \text{Tan}[c+d x]}{12 d}+\frac{7 a^4 (7 A+8 B+10 C) \text{Sec}[c+d x] \text{Tan}[c+d x]}{48 d}+\frac{A (a+a \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^5 \text{Tan}[c+d x]}{6 d}+\frac{7 a^2 (7 A+8 B+10 C) (a+a \text{Sec}[c+d x])^2 \text{Tan}[c+d x]}{120 d}+\frac{a (7 A+8 B+10 C) (a+a \text{Sec}[c+d x])^3 \text{Tan}[c+d x]}{40 d}+\frac{(2 A+3 B) (a+a \text{Sec}[c+d x])^4 \text{Tan}[c+d x]}{15 d}$$

$$\frac{1}{122880 d} a^4 (1+\text{Cos}[c+d x])^4 \text{Sec}\left[\frac{1}{2} (c+d x)\right]^8 \left(\text{Sec}[c] \text{Sec}[c+d x]^6 (30 (125 A+88 B+62 C) \text{Sin}[d x]+30 (125 A+88 B+62 C) \text{Sin}[2 c+d x]+15360 A \text{Sin}[c+2 d x]+15840 B \text{Sin}[c+2 d x]+17280 C \text{Sin}[c+2 d x]-1920 A \text{Sin}[3 c+2 d x]-4080 B \text{Sin}[3 c+2 d x]-6720 C \text{Sin}[3 c+2 d x]+3845 A \text{Sin}[2 c+3 d x]+3480 B \text{Sin}[2 c+3 d x]+2670 C \text{Sin}[2 c+3 d x]+3845 A \text{Sin}[4 c+3 d x]+3480 B \text{Sin}[4 c+3 d x]+2670 C \text{Sin}[4 c+3 d x]+6912 A \text{Sin}[3 c+4 d x]+7728 B \text{Sin}[3 c+4 d x]+8640 C \text{Sin}[3 c+4 d x]-240 B \text{Sin}[5 c+4 d x]-960 C \text{Sin}[5 c+4 d x]+735 A \text{Sin}[4 c+5 d x]+840 B \text{Sin}[4 c+5 d x]+810 C \text{Sin}[4 c+5 d x]+735 A \text{Sin}[6 c+5 d x]+840 B \text{Sin}[6 c+5 d x]+810 C \text{Sin}[6 c+5 d x]+1152 A \text{Sin}[5 c+6 d x]+1328 B \text{Sin}[5 c+6 d x]+1600 C \text{Sin}[5 c+6 d x])-160 \left(21 (7 A+8 B+10 C) \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]\right)+(72 A+83 B+100 C) \text{Sec}[c+d x]^6 \text{Tan}[c]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^3 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{a+a \text{Cos}[c+d x]}, x, 5, 0\right\}$$

$$\frac{3 (4 A-4 B+5 C) x}{8 a}-\frac{2 (3 A-4 B+4 C) \text{Sin}[c+d x]}{3 a d}+\frac{3 (4 A-4 B+5 C) \text{Cos}[c+d x] \text{Sin}[c+d x]}{8 a d}-\frac{(3 A-4 B+4 C) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{3 a d}+\frac{(4 A-4 B+5 C) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{4 a d}-\frac{(A-B+C) \text{Cos}[c+d x]^4 \text{Sin}[c+d x]}{d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{192 a d (1+\text{Cos}[c+d x])} \text{Cos}\left[\frac{1}{2} (c+d x)\right] \text{Sec}\left[\frac{c}{2}\right] \left(72 (4 A-4 B+5 C) d x \text{Cos}\left[\frac{d x}{2}\right]+72 (4 A-4 B+5 C) d x \text{Cos}\left[c+\frac{d x}{2}\right]-480 A \text{Sin}\left[\frac{d x}{2}\right]+552 B \text{Sin}\left[\frac{d x}{2}\right]-552 C \text{Sin}\left[\frac{d x}{2}\right]-96 A \text{Sin}\left[c+\frac{d x}{2}\right]+168 B \text{Sin}\left[c+\frac{d x}{2}\right]-168 C \text{Sin}\left[c+\frac{d x}{2}\right]-72 A \text{Sin}\left[c+\frac{3 d x}{2}\right]+144 B \text{Sin}\left[c+\frac{3 d x}{2}\right]-120 C \text{Sin}\left[c+\frac{3 d x}{2}\right]-72 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+144 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-120 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+24 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-16 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+40 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+24 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-16 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+40 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+8 B \text{Sin}\left[3 c+\frac{7 d x}{2}\right]-5 C \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+8 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-5 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+3 C \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+3 C \text{Sin}\left[5 c+\frac{9 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^2 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{a+a \text{Cos}[c+d x]}, x, 4, 0\right\}$$

$$-\frac{(2 A-3 B+3 C) x}{2 a}+\frac{2 (3 A-3 B+4 C) \text{Sin}[c+d x]}{3 a d}-\frac{(2 A-3 B+3 C) \text{Cos}[c+d x] \text{Sin}[c+d x]}{2 a d}+\frac{(3 A-3 B+4 C) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{3 a d}-\frac{(A-B+C) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{24\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(-12\,(2\,A-3\,B+3\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-12\,(2\,A-3\,B+3\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+60\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-60\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+69\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+12\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-12\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+21\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+12\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+18\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+12\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+18\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\,x,\,3,\,0\right\}$$

$$\frac{(B-C)\,x}{a}+\frac{C\,\text{Sin}[c+d\,x]}{a\,d}+\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(2\,(B-C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+2\,(B-C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+4\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-4\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+5\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{a+a\,\text{Cos}[c+d\,x]},\,x,\,3,\,0\right\}$$

$$\frac{C\,x}{a}+\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,d\,(1+\text{Cos}[c+d\,x])}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(\text{Cos}\left[\frac{d\,x}{2}\right]\left(C\,d\,x-A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+\text{Cos}\left[c+\frac{d\,x}{2}\right]\left(C\,d\,x-A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)-2\,(A-B+C)\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{a+a\,\text{Cos}[c+d\,x]},\,x,\,4,\,0\right\}$$

$$-\frac{(A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a\,d}+\frac{(2\,A-B+C)\,\text{Tan}[c+d\,x]}{a\,d}-\frac{(A-B+C)\,\text{Tan}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\left(4\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Cos}[c+d\,x]^2\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)\left((A-B+C)\,\text{Sec}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left((A-B)\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)-(A+2\,(A-B+C)\,\text{Cos}[c])\,\text{Sec}[c]\,\text{Sec}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]\right)\right)\right)\Big/\left(a\,d\,(1+\text{Cos}[c+d\,x])\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$\frac{(3\,A-2\,B+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a\,d}-\frac{(2\,A-2\,B+C)\,\mathrm{Tan}[c+d\,x]}{a\,d}+\frac{(3\,A-2\,B+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a\,d\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(-4\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left((-6\,A+4\,B-4\,C)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+6\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-4\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+4\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-4\,(A-B)\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]+\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{a+a\,\mathrm{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$-\frac{(3\,A-3\,B+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a\,d}+\frac{2\,(4\,A-3\,B+3\,C)\,\mathrm{Tan}[c+d\,x]}{3\,a\,d}-\frac{(3\,A-3\,B+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}+\frac{(4\,A-3\,B+3\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a\,d\,(1+\mathrm{Cos}[c+d\,x])}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(48\,(3\,A-3\,B+2\,C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-48\,(3\,A-3\,B+2\,C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\left(6\,(A+B-C)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,(13\,A-9\,B+10\,C)\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-24\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+12\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-12\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-6\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+6\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-6\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-24\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+24\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-24\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+21\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+12\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+9\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+12\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-9\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-6\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+7\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-3\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-3\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-9\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-6\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+16\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-12\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+12\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+10\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+6\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{(4A-7B+10C)\,x}{2a^2}+\frac{2(5A-8B+12C)\,\text{Sin}[c+dx]}{3a^2d}-\frac{(4A-7B+10C)\,\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{2a^2d}+\frac{(5A-8B+12C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{3a^2d}-\frac{(A-B+C)\,\text{Cos}[c+dx]^4\,\text{Sin}[c+dx]}{3d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(4A-7B+10C)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{3ad\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{1}{48a^2d\,(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]\left(-36(4A-7B+10C)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]-36(4A-7B+10C)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]-48A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+84B\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]-120C\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]-48A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+84B\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]-120C\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+264A\,\text{Sin}\left[\frac{dx}{2}\right]-381B\,\text{Sin}\left[\frac{dx}{2}\right]+516C\,\text{Sin}\left[\frac{dx}{2}\right]-120A\,\text{Sin}\left[c+\frac{dx}{2}\right]+147B\,\text{Sin}\left[c+\frac{dx}{2}\right]-156C\,\text{Sin}\left[c+\frac{dx}{2}\right]+164A\,\text{Sin}\left[c+\frac{3dx}{2}\right]-239B\,\text{Sin}\left[c+\frac{3dx}{2}\right]+342C\,\text{Sin}\left[c+\frac{3dx}{2}\right]+36A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-63B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+118C\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+12A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-15B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+30C\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+12A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-15B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+30C\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+3B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-3C\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+3B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-3C\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+C\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+C\,\text{Sin}\left[5c+\frac{9dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^2\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)}{(a+a\,\text{Cos}[c+dx])^2},\ x,\ 4,\ 0\right\}$$

$$\frac{(2A-4B+7C)\,x}{2a^2}-\frac{2(2A-5B+8C)\,\text{Sin}[c+dx]}{3a^2d}+\frac{(2A-4B+7C)\,\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{2a^2d}-\frac{(A-B+C)\,\text{Cos}[c+dx]^3\,\text{Sin}[c+dx]}{3d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(2A-5B+8C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{3ad\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{1}{48a^2d\,(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}\left[\frac{c}{2}\right]\left(36(2A-4B+7C)\,dx\,\text{Cos}\left[\frac{dx}{2}\right]+36(2A-4B+7C)\,dx\,\text{Cos}\left[c+\frac{dx}{2}\right]+24A\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]-48B\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+84C\,dx\,\text{Cos}\left[c+\frac{3dx}{2}\right]+24A\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]-48B\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]+84C\,dx\,\text{Cos}\left[2c+\frac{3dx}{2}\right]-144A\,\text{Sin}\left[\frac{dx}{2}\right]+264B\,\text{Sin}\left[\frac{dx}{2}\right]-381C\,\text{Sin}\left[\frac{dx}{2}\right]+96A\,\text{Sin}\left[c+\frac{dx}{2}\right]-120B\,\text{Sin}\left[c+\frac{dx}{2}\right]+147C\,\text{Sin}\left[c+\frac{dx}{2}\right]-80A\,\text{Sin}\left[c+\frac{3dx}{2}\right]+164B\,\text{Sin}\left[c+\frac{3dx}{2}\right]-239C\,\text{Sin}\left[c+\frac{3dx}{2}\right]+36B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-63C\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+12B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-15C\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+12B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-15C\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+3C\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+3C\,\text{Sin}\left[4c+\frac{7dx}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)}{(a+a\,\text{Cos}[c+dx])^2},\ x,\ 4,\ 0\right\}$$

$$\frac{(B-2C)\,x}{a^2}+\frac{(A-B+4C)\,\text{Sin}[c+dx]}{3a^2d}-\frac{(A-B+C)\,\text{Cos}[c+dx]^2\,\text{Sin}[c+dx]}{3d\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(B-2C)\,\text{Sin}[c+dx]}{ad\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{1}{12 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}\left[\frac{c}{2}\right] \left(18 (B-2 C) d x \text{Cos}\left[\frac{d x}{2}\right]+18 (B-2 C) d x \text{Cos}\left[c+\frac{d x}{2}\right]+6 B d x \text{Cos}\left[c+\frac{3 d x}{2}\right]-12 C d x \text{Cos}\left[c+\frac{3 d x}{2}\right]+6 B d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]-12 C d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+12 A \text{Sin}\left[\frac{d x}{2}\right]-36 B \text{Sin}\left[\frac{d x}{2}\right]+66 C \text{Sin}\left[\frac{d x}{2}\right]-12 A \text{Sin}\left[c+\frac{d x}{2}\right]+24 B \text{Sin}\left[c+\frac{d x}{2}\right]-30 C \text{Sin}\left[c+\frac{d x}{2}\right]+8 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-20 B \text{Sin}\left[c+\frac{3 d x}{2}\right]+41 C \text{Sin}\left[c+\frac{3 d x}{2}\right]+9 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+3 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+3 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{(a+a \text{Cos}[c+d x])^2}, x, 3, 0\right\}$$

$$\frac{C x}{a^2}+\frac{(A-B+C) \text{Sin}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}+\frac{(A+2 B-5 C) \text{Sin}[c+d x]}{3 a d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{24 a^2 d} \text{Sec}\left[\frac{c}{2}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \left(9 C d x \text{Cos}\left[\frac{d x}{2}\right]+9 C d x \text{Cos}\left[c+\frac{d x}{2}\right]+3 C d x \text{Cos}\left[c+\frac{3 d x}{2}\right]+3 C d x \text{Cos}\left[2 c+\frac{3 d x}{2}\right]+6 A \text{Sin}\left[\frac{d x}{2}\right]+6 B \text{Sin}\left[\frac{d x}{2}\right]-18 C \text{Sin}\left[\frac{d x}{2}\right]-6 B \text{Sin}\left[c+\frac{d x}{2}\right]+12 C \text{Sin}\left[c+\frac{d x}{2}\right]+2 A \text{Sin}\left[c+\frac{3 d x}{2}\right]+4 B \text{Sin}\left[c+\frac{3 d x}{2}\right]-10 C \text{Sin}\left[c+\frac{3 d x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{(a+a \text{Cos}[c+d x])^2}, x, 3, 0\right\}$$

$$\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}-\frac{(A-B+C) \text{Sin}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}-\frac{(4 A-B-2 C) \text{Sin}[c+d x]}{3 a d (a+a \text{Cos}[c+d x])}$$

$$-\left(4 \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Cos}[c+d x] (B+C \text{Cos}[c+d x]+A \text{Sec}[c+d x]) \left(6 A \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+(A-B+C) \text{Sec}\left[\frac{c}{2}\right] \text{Sin}\left[\frac{d x}{2}\right]+2 (4 A-B-2 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}\left[\frac{c}{2}\right] \text{Sin}\left[\frac{d x}{2}\right]+(A-B+C) \text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Tan}\left[\frac{c}{2}\right]\right)\right) \Big/ \left(3 a^2 d (1+\text{Cos}[c+d x])^2 (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 (c+d x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^2}{(a+a \text{Cos}[c+d x])^2}, x, 5, 0\right\}$$

$$-\frac{(2 A-B) \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}+\frac{(10 A-4 B+C) \text{Tan}[c+d x]}{3 a^2 d}-\frac{(A-B+C) \text{Tan}[c+d x]}{3 d (a+a \text{Cos}[c+d x])^2}-\frac{(2 A-B) \text{Tan}[c+d x]}{a d (a+a \text{Cos}[c+d x])}$$

$$\left(4\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Cos}[c+d\,x]^2\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\right.$$
$$\left(\left((A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+2\,(7\,A-4\,B+C)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\right.\right.$$
$$6\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\left((2\,A-B)\left(\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)+$$
$$\left.\left.A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]\right)+(A-B+C)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Tan}\left[\frac{c}{2}\right]\right)\Bigg)\Bigg/$$
$$\left(3\,a^2\,d\,(1+\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$
$$\frac{(7\,A-4\,B+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^2\,d}-\frac{2\,(8\,A-5\,B+2\,C)\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,d}+$$
$$\frac{(7\,A-4\,B+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^2\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(8\,A-5\,B+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^2\,d\,(1+\mathrm{Cos}[c+d\,x])^2}$$
$$\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\left(-96\,(7\,A-4\,B+2\,C)\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+96\,(7\,A-4\,B+2\,C)\right.$$
$$\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^3\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\left(2\,(7\,A-7\,B+10\,C)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\right.$$
$$(-97\,A+64\,B-22\,C)\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+126\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-84\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+36\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-42\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$
$$42\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-36\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+98\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-56\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+20\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+3\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$6\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+18\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-37\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+34\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-22\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+$$
$$63\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-36\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+18\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-75\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+48\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$
$$18\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-15\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+6\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-39\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+$$
$$30\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-18\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+21\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-12\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+$$
$$6\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-32\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+20\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-8\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-12\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$\left.\left.6\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-20\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+14\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-8\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$
$$-\frac{(10\,A-7\,B+4\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^2\,d}+\frac{2\,(12\,A-8\,B+5\,C)\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,d}-\frac{(10\,A-7\,B+4\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^2\,d}+$$
$$\frac{(12\,A-8\,B+5\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(10\,A-7\,B+4\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{96 a^2 d (1+\text{Cos}[c+d x])^2} \text{Cos}\left[\frac{1}{2}(c+d x)\right] \left(192 (10 A-7 B+4 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\right.$$
$$192 (10 A-7 B+4 C) \text{Cos}\left[\frac{1}{2}(c+d x)\right]^3 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+$$
$$\text{Sec}\left[\frac{c}{2}\right] \text{Sec}[c] \text{Sec}[c+d x]^3 \left((-6 A+45 B-48 C) \text{Sin}\left[\frac{d x}{2}\right]+(310 A-201 B+132 C) \text{Sin}\left[\frac{3 d x}{2}\right]-\right.$$
$$306 A \text{Sin}\left[c-\frac{d x}{2}\right]+195 B \text{Sin}\left[c-\frac{d x}{2}\right]-120 C \text{Sin}\left[c-\frac{d x}{2}\right]+42 A \text{Sin}\left[c+\frac{d x}{2}\right]-51 B \text{Sin}\left[c+\frac{d x}{2}\right]+$$
$$48 C \text{Sin}\left[c+\frac{d x}{2}\right]-270 A \text{Sin}\left[2 c+\frac{d x}{2}\right]+189 B \text{Sin}\left[2 c+\frac{d x}{2}\right]-120 C \text{Sin}\left[2 c+\frac{d x}{2}\right]+50 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-$$
$$B \text{Sin}\left[c+\frac{3 d x}{2}\right]-8 C \text{Sin}\left[c+\frac{3 d x}{2}\right]+90 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-81 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+72 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-$$
$$170 A \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+119 B \text{Sin}\left[3 c+\frac{3 d x}{2}\right]-68 C \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+198 A \text{Sin}\left[c+\frac{5 d x}{2}\right]-129 B \text{Sin}\left[c+\frac{5 d x}{2}\right]+$$
$$84 C \text{Sin}\left[c+\frac{5 d x}{2}\right]+42 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-9 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+66 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-57 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+$$
$$48 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-90 A \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+63 B \text{Sin}\left[4 c+\frac{5 d x}{2}\right]-36 C \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+114 A \text{Sin}\left[2 c+\frac{7 d x}{2}\right]-$$
$$75 B \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+48 C \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+36 A \text{Sin}\left[3 c+\frac{7 d x}{2}\right]-15 B \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+6 C \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+$$
$$48 A \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-39 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+30 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-30 A \text{Sin}\left[5 c+\frac{7 d x}{2}\right]+21 B \text{Sin}\left[5 c+\frac{7 d x}{2}\right]-$$
$$12 C \text{Sin}\left[5 c+\frac{7 d x}{2}\right]+48 A \text{Sin}\left[3 c+\frac{9 d x}{2}\right]-32 B \text{Sin}\left[3 c+\frac{9 d x}{2}\right]+20 C \text{Sin}\left[3 c+\frac{9 d x}{2}\right]+22 A \text{Sin}\left[4 c+\frac{9 d x}{2}\right]-$$
$$\left.\left.12 B \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+6 C \text{Sin}\left[4 c+\frac{9 d x}{2}\right]+26 A \text{Sin}\left[5 c+\frac{9 d x}{2}\right]-20 B \text{Sin}\left[5 c+\frac{9 d x}{2}\right]+14 C \text{Sin}\left[5 c+\frac{9 d x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^4 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+a \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$

$$-\frac{(6 A-13 B+23 C) x}{2 a^3}+\frac{8 (9 A-19 B+34 C) \text{Sin}[c+d x]}{15 a^3 d}-\frac{(6 A-13 B+23 C) \text{Cos}[c+d x] \text{Sin}[c+d x]}{2 a^3 d}+$$
$$\frac{4 (9 A-19 B+34 C) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{15 a^3 d}-\frac{(A-B+C) \text{Cos}[c+d x]^5 \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3}-$$
$$\frac{(3 A-8 B+13 C) \text{Cos}[c+d x]^4 \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2}-\frac{(6 A-13 B+23 C) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{3 a^2 d (a+a \text{Cos}[c+d x])}$$

$$\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(-600\,(6\,A-13\,B+23\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]-600\,(6\,A-13\,B+23\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]-1800\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+\right.$$
$$3900\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-6900\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-1800\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+3900\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$6900\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-360\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+780\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-1380\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$
$$360\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+780\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-1380\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+7020\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-$$
$$12\,760\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+20\,410\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-4500\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+7560\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-11\,110\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$
$$4860\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-9230\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+15\,380\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-900\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+930\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$380\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+1452\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2782\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+4777\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$300\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-750\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+1625\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+60\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-105\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$
$$230\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+60\,A\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-105\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+230\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-$$
$$\left.20\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+15\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-20\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+5\,C\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+5\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$\frac{(2\,A-6\,B+13\,C)\,x}{2\,a^3}-\frac{2\,(11\,A-36\,B+76\,C)\,\text{Sin}[c+d\,x]}{15\,a^3\,d}+\frac{(2\,A-6\,B+13\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,a^3\,d}-$$
$$\frac{(A-B+C)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(A-6\,B+11\,C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(11\,A-36\,B+76\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]$$
$$\left(600\,(2\,A-6\,B+13\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+600\,(2\,A-6\,B+13\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+600\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-1800\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+\right.$$
$$3900\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+600\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-1800\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+3900\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+$$
$$120\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-360\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+780\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+120\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$
$$360\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+780\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-2960\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+7020\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-12\,760\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$2160\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-4500\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+7560\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1840\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+4860\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$9230\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+720\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-900\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+930\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-512\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$1452\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2782\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+300\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-750\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+60\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$
$$\left.105\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+60\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-105\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$\frac{(B-3\,C)\,x}{a^3}+\frac{(2\,A-7\,B+27\,C)\,\text{Sin}[c+d\,x]}{15\,a^3\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(A+4\,B-9\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(B-3\,C)\,\text{Sin}[c+d\,x]}{a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{120\,a^3\,d\,(1+\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(300\,(B-3\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+300\,(B-3\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+150\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-450\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+150\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-450\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+30\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-90\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+30\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-90\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+160\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-740\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+1755\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-120\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+540\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1125\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+80\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-460\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+1215\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-60\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+180\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-225\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+28\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-128\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+363\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+75\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+15\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 4,\ 0\right\}$$

$$\frac{C\,x}{a^3}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(3\,A+2\,B-7\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(3\,A+2\,B-22\,C)\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{480\,a^3\,d}\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\left(150\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+150\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+75\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+75\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+15\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+15\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+30\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+80\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-370\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-30\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-60\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+270\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+30\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+40\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-230\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-30\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+90\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+6\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+14\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-64\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 4,\ 0\right\}$$

$$\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^3\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(7\,A-2\,B-3\,C)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(22\,A-2\,B-3\,C)\,\text{Sin}[c+d\,x]}{15\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{15 a^3 d (1+\text{Cos}[c+d x])^3 (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 (c+d x)])}$$
$$\text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Cos}[c+d x] (B+C \text{Cos}[c+d x]+A \text{Sec}[c+d x])$$
$$\left(240 A \text{Cos}\left[\frac{1}{2}(c+d x)\right]^5 \left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)+\right.$$
$$\text{Sec}\left[\frac{c}{2}\right] \left(5 (29 A-4 B-3 C) \text{Sin}\left[\frac{d x}{2}\right]+15 (-5 A+C) \text{Sin}\left[c+\frac{d x}{2}\right]+95 A \text{Sin}\left[c+\frac{3 d x}{2}\right]-10 B \text{Sin}\left[c+\frac{3 d x}{2}\right]-\right.$$
$$\left.\left.15 C \text{Sin}\left[c+\frac{3 d x}{2}\right]-15 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+22 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-2 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]-3 C \text{Sin}\left[2 c+\frac{5 d x}{2}\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^2}{(a+a \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$
$$-\frac{(3 A-B) \text{ArcTanh}[\text{Sin}[c+d x]]}{a^3 d}+\frac{2 (36 A-11 B+C) \text{Tan}[c+d x]}{15 a^3 d}-$$
$$\frac{(A-B+C) \text{Tan}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3}-\frac{(9 A-4 B-C) \text{Tan}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2}-\frac{(3 A-B) \text{Tan}[c+d x]}{a^2 d (a+a \text{Cos}[c+d x])}$$
$$\frac{1}{a^3}\left(\frac{16 (3 A-B) \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right)}{d (1+\text{Cos}[c+d x])^3 (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x])}-\right.$$
$$\frac{16 (3 A-B) \text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^6 \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right)}{d (1+\text{Cos}[c+d x])^3 (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x])}+$$
$$\frac{1}{60 d (1+\text{Cos}[c+d x])^3 (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 c+2 d x])}$$
$$\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right] \text{Cos}[c+d x] \text{Sec}\left[\frac{c}{2}\right] \text{Sec}[c] \left(C+B \text{Sec}[c+d x]+A \text{Sec}[c+d x]^2\right)$$
$$\left(-255 A \text{Sin}\left[\frac{d x}{2}\right]+160 B \text{Sin}\left[\frac{d x}{2}\right]-20 C \text{Sin}\left[\frac{d x}{2}\right]+567 A \text{Sin}\left[\frac{3 d x}{2}\right]-167 B \text{Sin}\left[\frac{3 d x}{2}\right]+22 C \text{Sin}\left[\frac{3 d x}{2}\right]-\right.$$
$$600 A \text{Sin}\left[c-\frac{d x}{2}\right]+170 B \text{Sin}\left[c-\frac{d x}{2}\right]-10 C \text{Sin}\left[c-\frac{d x}{2}\right]+375 A \text{Sin}\left[c+\frac{d x}{2}\right]-170 B \text{Sin}\left[c+\frac{d x}{2}\right]+$$
$$10 C \text{Sin}\left[c+\frac{d x}{2}\right]-480 A \text{Sin}\left[2 c+\frac{d x}{2}\right]+160 B \text{Sin}\left[2 c+\frac{d x}{2}\right]-20 C \text{Sin}\left[2 c+\frac{d x}{2}\right]-60 A \text{Sin}\left[c+\frac{3 d x}{2}\right]+$$
$$75 B \text{Sin}\left[c+\frac{3 d x}{2}\right]+402 A \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-167 B \text{Sin}\left[2 c+\frac{3 d x}{2}\right]+22 C \text{Sin}\left[2 c+\frac{3 d x}{2}\right]-$$
$$225 A \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+75 B \text{Sin}\left[3 c+\frac{3 d x}{2}\right]+315 A \text{Sin}\left[c+\frac{5 d x}{2}\right]-95 B \text{Sin}\left[c+\frac{5 d x}{2}\right]+10 C \text{Sin}\left[c+\frac{5 d x}{2}\right]+$$
$$30 A \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+15 B \text{Sin}\left[2 c+\frac{5 d x}{2}\right]+240 A \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-95 B \text{Sin}\left[3 c+\frac{5 d x}{2}\right]+$$
$$10 C \text{Sin}\left[3 c+\frac{5 d x}{2}\right]-45 A \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+15 B \text{Sin}\left[4 c+\frac{5 d x}{2}\right]+72 A \text{Sin}\left[2 c+\frac{7 d x}{2}\right]-22 B \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+$$
$$\left.2 C \text{Sin}\left[2 c+\frac{7 d x}{2}\right]+15 A \text{Sin}\left[3 c+\frac{7 d x}{2}\right]+57 A \text{Sin}\left[4 c+\frac{7 d x}{2}\right]-22 B \text{Sin}\left[4 c+\frac{7 d x}{2}\right]+2 C \text{Sin}\left[4 c+\frac{7 d x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^3}{(a+a \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$\frac{(13A-6B+2C)\,\text{ArcTanh}[\text{Sin}[c+dx]]}{2a^3d}-\frac{2(76A-36B+11C)\,\text{Tan}[c+dx]}{15a^3d}+\frac{(13A-6B+2C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2a^3d}-$$
$$\frac{(A-B+C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{5d\,(a+a\,\text{Cos}[c+dx])^3}-\frac{(11A-6B+C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{15ad\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(76A-36B+11C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{15a^2d\,(a+a\,\text{Cos}[c+dx])}$$
$$-\frac{1}{480a^3d\,(1+\text{Cos}[c+dx])^3}\text{Cos}\left[\frac{1}{2}(c+dx)\right]\Bigg(1920(13A-6B+2C)$$
$$\text{Cos}\left[\frac{1}{2}(c+dx)\right]^5\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\right)+$$
$$\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+dx]^2\Bigg(-5(247A-174B+98C)\,\text{Sin}\left[\frac{dx}{2}\right]+5(761A-366B+106C)\,\text{Sin}\left[\frac{3dx}{2}\right]-$$
$$4329A\,\text{Sin}\left[c-\frac{dx}{2}\right]+2094B\,\text{Sin}\left[c-\frac{dx}{2}\right]-654C\,\text{Sin}\left[c-\frac{dx}{2}\right]+1989A\,\text{Sin}\left[c+\frac{dx}{2}\right]-1314B\,\text{Sin}\left[c+\frac{dx}{2}\right]+$$
$$654C\,\text{Sin}\left[c+\frac{dx}{2}\right]-3575A\,\text{Sin}\left[2c+\frac{dx}{2}\right]+1650B\,\text{Sin}\left[2c+\frac{dx}{2}\right]-490C\,\text{Sin}\left[2c+\frac{dx}{2}\right]-475A\,\text{Sin}\left[c+\frac{3dx}{2}\right]+$$
$$450B\,\text{Sin}\left[c+\frac{3dx}{2}\right]-350C\,\text{Sin}\left[c+\frac{3dx}{2}\right]+2005A\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-1230B\,\text{Sin}\left[2c+\frac{3dx}{2}\right]+530C\,\text{Sin}\left[2c+\frac{3dx}{2}\right]-$$
$$2275A\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+1050B\,\text{Sin}\left[3c+\frac{3dx}{2}\right]-350C\,\text{Sin}\left[3c+\frac{3dx}{2}\right]+2673A\,\text{Sin}\left[c+\frac{5dx}{2}\right]-1278B\,\text{Sin}\left[c+\frac{5dx}{2}\right]+$$
$$378C\,\text{Sin}\left[c+\frac{5dx}{2}\right]+105A\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+90B\,\text{Sin}\left[2c+\frac{5dx}{2}\right]-150C\,\text{Sin}\left[2c+\frac{5dx}{2}\right]+1593A\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-$$
$$918B\,\text{Sin}\left[3c+\frac{5dx}{2}\right]+378C\,\text{Sin}\left[3c+\frac{5dx}{2}\right]-975A\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+450B\,\text{Sin}\left[4c+\frac{5dx}{2}\right]-150C\,\text{Sin}\left[4c+\frac{5dx}{2}\right]+$$
$$1325A\,\text{Sin}\left[2c+\frac{7dx}{2}\right]-630B\,\text{Sin}\left[2c+\frac{7dx}{2}\right]+190C\,\text{Sin}\left[2c+\frac{7dx}{2}\right]+255A\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-60B\,\text{Sin}\left[3c+\frac{7dx}{2}\right]-$$
$$30C\,\text{Sin}\left[3c+\frac{7dx}{2}\right]+875A\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-480B\,\text{Sin}\left[4c+\frac{7dx}{2}\right]+190C\,\text{Sin}\left[4c+\frac{7dx}{2}\right]-195A\,\text{Sin}\left[5c+\frac{7dx}{2}\right]+$$
$$90B\,\text{Sin}\left[5c+\frac{7dx}{2}\right]-30C\,\text{Sin}\left[5c+\frac{7dx}{2}\right]+304A\,\text{Sin}\left[3c+\frac{9dx}{2}\right]-144B\,\text{Sin}\left[3c+\frac{9dx}{2}\right]+44C\,\text{Sin}\left[3c+\frac{9dx}{2}\right]+$$
$$90A\,\text{Sin}\left[4c+\frac{9dx}{2}\right]-30B\,\text{Sin}\left[4c+\frac{9dx}{2}\right]+214A\,\text{Sin}\left[5c+\frac{9dx}{2}\right]-114B\,\text{Sin}\left[5c+\frac{9dx}{2}\right]+44C\,\text{Sin}\left[5c+\frac{9dx}{2}\right]\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^4}{(a+a\,\text{Cos}[c+dx])^3},\ x,\ 8,\ 0\right\}$$
$$-\frac{(23A-13B+6C)\,\text{ArcTanh}[\text{Sin}[c+dx]]}{2a^3d}+\frac{8(34A-19B+9C)\,\text{Tan}[c+dx]}{15a^3d}-\frac{(23A-13B+6C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2a^3d}+$$
$$\frac{4(34A-19B+9C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{15a^3d}-\frac{(A-B+C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{5d\,(a+a\,\text{Cos}[c+dx])^3}-$$
$$\frac{(13A-8B+3C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{15ad\,(a+a\,\text{Cos}[c+dx])^2}-\frac{(23A-13B+6C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{3a^2d\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{4\,(23\,A-13\,B+6\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{4\,(23\,A-13\,B+6\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{1}{960\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3$$

$$\Big(-2484\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+2464\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-1764\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+12\,622\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-7002\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+3372\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-$$

$$13\,340\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+7380\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-3480\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+4140\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-3240\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$2100\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-11\,684\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+6604\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-3144\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-450\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$1130\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-960\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+5022\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-3582\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+2232\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$8050\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+4550\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-2100\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+9230\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-5130\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+$$

$$2460\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+630\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+220\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-390\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+4230\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$

$$2880\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+1710\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-4370\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+2470\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-$$

$$1140\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+5347\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-2977\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+1422\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$

$$875\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-195\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-60\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+2747\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-1807\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+$$

$$1032\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-1725\,A\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+975\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-450\,C\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+2375\,A\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-$$

$$1325\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+630\,C\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+655\,A\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-255\,B\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+60\,C\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+$$

$$1375\,A\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-875\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+480\,C\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-345\,A\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+195\,B\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-$$

$$90\,C\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+544\,A\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]-304\,B\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+144\,C\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+200\,A\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]-$$

$$90\,B\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+30\,C\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+344\,A\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-214\,B\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+114\,C\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^4\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(2\,A-8\,B+21\,C)\,x}{2\,a^4}-\frac{8\,(20\,A-83\,B+216\,C)\,\mathrm{Sin}[c+d\,x]}{105\,a^4\,d}+\frac{(2\,A-8\,B+21\,C)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{2\,a^4\,d}-$$

$$\frac{(A-B+C)\,\mathrm{Cos}[c+d\,x]^5\,\mathrm{Sin}[c+d\,x]}{7\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}+\frac{(B-2\,C)\,\mathrm{Cos}[c+d\,x]^4\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{(10\,A-52\,B+129\,C)\,\mathrm{Cos}[c+d\,x]^3\,\mathrm{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{4\,(20\,A-83\,B+216\,C)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Sin}[c+d\,x]}{105\,a^3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{6720\, a^4\, d\, (1+\text{Cos}[c+d\,x])^4}$$

$$\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(14\,700\,(2\,A-8\,B+21\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+14\,700\,(2\,A-8\,B+21\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+\right.$$
$$17\,640\,A\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-70\,560\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+185\,220\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+17\,640\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$70\,560\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+185\,220\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+5880\,A\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-23\,520\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$
$$61\,740\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+5880\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-23\,520\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+61\,740\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+$$
$$840\,A\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]-3360\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+8820\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+840\,A\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]-$$
$$3360\,B\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]+8820\,C\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]-79\,520\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+243\,320\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-539\,490\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$66\,080\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-184\,520\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+386\,190\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-57\,120\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+184\,464\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$422\,478\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+30\,240\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-72\,240\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+132\,930\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$
$$22\,400\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+77\,168\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-181\,461\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+6720\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$
$$8400\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+3675\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-4160\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+15\,164\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$
$$36\,003\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+2940\,B\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-9555\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+420\,B\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-$$
$$\left.945\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+420\,B\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-945\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(B-4\,C)\,x}{a^4}+\frac{(6\,A-55\,B+244\,C)\,\text{Sin}[c+d\,x]}{105\,a^4\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^4\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}+$$
$$\frac{(2\,A+5\,B-12\,C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(3\,A+25\,B-88\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(B-4\,C)\,\text{Sin}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{1680\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4}\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\text{Sec}\left[\frac{c}{2}\right]\left(7350\,(B-4\,C)\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+7350\,(B-4\,C)\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+4410\,B\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]-17\,640\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+4410\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]-17\,640\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+1470\,B\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]-5880\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+1470\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]-5880\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+210\,B\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]-840\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+210\,B\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]-840\,C\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]+2520\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-19\,880\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+60\,830\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-2520\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+16\,520\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-46\,130\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+1764\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-14\,280\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+46\,116\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-1260\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+7560\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-18\,060\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+588\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-5600\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+19\,292\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-420\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+1680\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2100\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+144\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-1040\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3791\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+735\,C\,\text{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+105\,C\,\text{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 5,\ 0\right\}$$

$$\frac{C\,x}{a^4}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}+\frac{(4\,A+3\,B-10\,C)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(8\,A+6\,B-55\,C)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{2\,(4\,A+3\,B-80\,C)\,\text{Sin}[c+d\,x]}{105\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{13\,440\,a^4\,d}\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^7\left(3675\,C\,d\,x\,\text{Cos}\left[\frac{d\,x}{2}\right]+3675\,C\,d\,x\,\text{Cos}\left[c+\frac{d\,x}{2}\right]+2205\,C\,d\,x\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]+2205\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{3\,d\,x}{2}\right]+735\,C\,d\,x\,\text{Cos}\left[2\,c+\frac{5\,d\,x}{2}\right]+735\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{5\,d\,x}{2}\right]+105\,C\,d\,x\,\text{Cos}\left[3\,c+\frac{7\,d\,x}{2}\right]+105\,C\,d\,x\,\text{Cos}\left[4\,c+\frac{7\,d\,x}{2}\right]+560\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+1260\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-9940\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-350\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-1260\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+8260\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+336\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+882\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-7140\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-210\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-630\,B\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+3780\,C\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+182\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+294\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-2800\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-210\,B\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+840\,C\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+26\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+72\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-520\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 5,\ 0\right\}$$

$$\frac{A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-\frac{(10\,A-3\,B-4\,C)\,\text{Sin}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(55\,A-6\,B-8\,C)\,\text{Sin}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{2\,(80\,A-3\,B-4\,C)\,\text{Sin}[c+d\,x]}{105\,a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{210\,a^4\,d\,(1+\text{Cos}[c+d\,x])^4\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,(c+d\,x)])}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Cos}[c+d\,x]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])$$

$$\left(6720\,A\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^7\left(\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+\right.$$

$$\text{Sec}\left[\frac{c}{2}\right]\left(70\,(49\,A-3\,B-2\,C)\,\text{Sin}\left[\frac{d\,x}{2}\right]-70\,(31\,A-2\,C)\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+2625\,A\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-126\,B\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-\right.$$

$$168\,C\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-735\,A\,\text{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+1015\,A\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-42\,B\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$

$$\left.\left.56\,C\,\text{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-105\,A\,\text{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+160\,A\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-6\,B\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-8\,C\,\text{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^4},\ x,\ 7,\ 0\right\}$$

$$-\frac{(4\,A-B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{a^4\,d}+\frac{2\,(332\,A-80\,B+3\,C)\,\text{Tan}[c+d\,x]}{105\,a^4\,d}-\frac{(A-B+C)\,\text{Tan}[c+d\,x]}{7\,d\,(a+a\,\text{Cos}[c+d\,x])^4}-$$

$$\frac{(12\,A-5\,B-2\,C)\,\text{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(88\,A-25\,B-3\,C)\,\text{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(4\,A-B)\,\text{Tan}[c+d\,x]}{a^3\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a^4}\left(\frac{32\,(4\,A-B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^4\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}-\right.$$

$$\frac{32\,(4\,A-B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{d\,(1+\mathrm{Cos}[c+d\,x])^4\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{840\,d\,(1+\mathrm{Cos}[c+d\,x])^4\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)$$

$$\left(-10\,780\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4165\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-210\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+18\,788\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-4445\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+252\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-\right.$$

$$20\,524\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+4795\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-126\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+14\,644\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-4795\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+$$

$$126\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-16\,660\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+4165\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-210\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-4690\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$2275\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+14\,378\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-4445\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+252\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$9100\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+2275\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+11\,668\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-2785\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+132\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$

$$630\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+735\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+9358\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-2785\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+132\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$

$$2940\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+735\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+4228\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-1015\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$

$$42\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+315\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+105\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+3493\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-1015\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+$$

$$42\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-420\,A\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+105\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+664\,A\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-160\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+$$

$$\left.\left.6\,C\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+105\,A\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+559\,A\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-160\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 8,\ 0\right\}$$

$$\frac{(21\,A-8\,B+2\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^4\,d}-\frac{8\,(216\,A-83\,B+20\,C)\,\mathrm{Tan}[c+d\,x]}{105\,a^4\,d}+$$

$$\frac{(21\,A-8\,B+2\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^4\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{7\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}-\frac{(2\,A-B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{(129\,A-52\,B+10\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{4\,(216\,A-83\,B+20\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{105\,a^3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{8\,(21\,A-8\,B+2\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}+$$

$$\frac{8\,(21\,A-8\,B+2\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}+$$

$$\frac{1}{6720\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2$$

$$\Big(73\,206\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-38\,668\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+14\,140\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-166\,668\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+64\,384\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-15\,160\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+$$

$$183\,162\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-70\,896\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+17\,220\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-100\,842\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+50\,316\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$17\,220\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+155\,526\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-59\,248\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+14\,140\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+37\,380\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$

$$22\,820\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+9800\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-101\,148\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+48\,004\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$15\,160\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+102\,900\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-39\,200\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+9800\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-$$

$$119\,364\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+46\,032\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-10\,920\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+8820\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-8750\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+$$

$$4760\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-78\,204\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+35\,742\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-10\,920\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+$$

$$49\,980\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-19\,040\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+4760\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-64\,053\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+$$

$$24\,664\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-5890\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-3885\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-1050\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+$$

$$1470\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-44\,733\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+19\,834\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-5890\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+$$

$$15\,435\,A\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-5880\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+1470\,C\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-21\,987\,A\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+$$

$$8456\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-2030\,C\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-3675\,A\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+630\,B\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+210\,C\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-$$

$$16\,107\,A\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+6986\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-2030\,C\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+2205\,A\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-840\,B\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+$$

$$210\,C\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-3456\,A\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+1328\,B\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]-320\,C\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]-840\,A\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+$$

$$210\,B\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]-2616\,A\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+1118\,B\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-320\,C\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^4}{(a+a\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 9,\ 0\right\}$$

$$-\frac{(44\,A-21\,B+8\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^4\,d}+\frac{8\,(454\,A-216\,B+83\,C)\,\mathrm{Tan}[c+d\,x]}{105\,a^4\,d}-$$

$$\frac{(44\,A-21\,B+8\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^4\,d}+\frac{4\,(454\,A-216\,B+83\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{105\,a^4\,d}-$$

$$\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{7\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}-\frac{(16\,A-9\,B+2\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{35\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{(178\,A-87\,B+31\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{105\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(44\,A-21\,B+8\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a^3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{8\,(44\,A-21\,B+8\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}-$$

$$\frac{8\,(44\,A-21\,B+8\,C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^8\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}+$$

$$\frac{1}{13440\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^4}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3$$

$$\Big(-205128\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+138222\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-73136\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+637224\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-302526\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+$$

$$116928\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-679096\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+322194\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-123632\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+284856\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$174354\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+86672\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-599368\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+286062\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-$$

$$110096\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-101304\,A\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+82026\,B\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]-47418\,C\,\mathrm{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$

$$307944\,A\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-179046\,B\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]+86058\,C\,\mathrm{Sin}\left[2\,c+\frac{3\,d\,x}{2}\right]-$$

$$430584\,A\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+205506\,B\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]-78288\,C\,\mathrm{Sin}\left[3\,c+\frac{3\,d\,x}{2}\right]+485724\,A\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-$$

$$230721\,B\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]+89048\,C\,\mathrm{Sin}\left[c+\frac{5\,d\,x}{2}\right]-21700\,A\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+33495\,B\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]-$$

$$23870\,C\,\mathrm{Sin}\left[2\,c+\frac{5\,d\,x}{2}\right]+259484\,A\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-145881\,B\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]+67838\,C\,\mathrm{Sin}\left[3\,c+\frac{5\,d\,x}{2}\right]-$$

$$247940\,A\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+118335\,B\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]-45080\,C\,\mathrm{Sin}\left[4\,c+\frac{5\,d\,x}{2}\right]+297444\,A\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]-$$

$$141351\,B\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+54488\,C\,\mathrm{Sin}\left[2\,c+\frac{7\,d\,x}{2}\right]+16100\,A\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+5145\,B\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]-$$

$$8120\,C\,\mathrm{Sin}\left[3\,c+\frac{7\,d\,x}{2}\right]+172004\,A\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-94311\,B\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]+42728\,C\,\mathrm{Sin}\left[4\,c+\frac{7\,d\,x}{2}\right]-$$

$$109340\,A\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+52185\,B\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]-19880\,C\,\mathrm{Sin}\left[5\,c+\frac{7\,d\,x}{2}\right]+141996\,A\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]-$$

$$67509\,B\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+25992\,C\,\mathrm{Sin}\left[3\,c+\frac{9\,d\,x}{2}\right]+21420\,A\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-4725\,B\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]-$$

$$840\,C\,\mathrm{Sin}\left[4\,c+\frac{9\,d\,x}{2}\right]+88236\,A\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-47349\,B\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]+20952\,C\,\mathrm{Sin}\left[5\,c+\frac{9\,d\,x}{2}\right]-$$

$$32340\,A\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+15435\,B\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]-5880\,C\,\mathrm{Sin}\left[6\,c+\frac{9\,d\,x}{2}\right]+46228\,A\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]-$$

$$21987\,B\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+8456\,C\,\mathrm{Sin}\left[4\,c+\frac{11\,d\,x}{2}\right]+11060\,A\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]-3675\,B\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+$$

$$630\,C\,\mathrm{Sin}\left[5\,c+\frac{11\,d\,x}{2}\right]+30548\,A\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-16107\,B\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]+6986\,C\,\mathrm{Sin}\left[6\,c+\frac{11\,d\,x}{2}\right]-$$

$$4620\,A\,\mathrm{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]+2205\,B\,\mathrm{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]-840\,C\,\mathrm{Sin}\left[7\,c+\frac{11\,d\,x}{2}\right]+7264\,A\,\mathrm{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]-$$

$$3456\,B\,\mathrm{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]+1328\,C\,\mathrm{Sin}\left[5\,c+\frac{13\,d\,x}{2}\right]+2240\,A\,\mathrm{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]-840\,B\,\mathrm{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]+$$

$$210\,C\,\mathrm{Sin}\left[6\,c+\frac{13\,d\,x}{2}\right]+5024\,A\,\mathrm{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]-2616\,B\,\mathrm{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]+1118\,C\,\mathrm{Sin}\left[7\,c+\frac{13\,d\,x}{2}\right]\Big)$$

Timed out after 60 seconds:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\;\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x],\ x,\ 3,\ 0\right\}$$

$$\frac{2\sqrt{2}\,a\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a\,(3\,B+C)\,\text{Sin}[c+d\,x]}{3\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,C\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}$$

???

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2,\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{2}\,a\,(A+2\,B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{a\,(A-2\,C)\,\text{Sin}[c+d\,x]}{d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{1}{8\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]\left(2\sqrt{2}\,(A+2\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$

$$16\,C\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+\frac{2\,i\,(A+2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{2\,i\,(A+2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(A+2\,B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\left.\frac{(A+2\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+\right.$$

$$\left.16\,C\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\frac{4\,A}{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}-\frac{4\,A}{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 3,\ 0\right\}$$

$$\frac{a\,(3\,A+4\,B+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,(A+4\,B)\,\text{Tan}[c+d\,x]}{4\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{32\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-2\,i\,\sqrt{2}\;(3\,A+4\,B+8\,C)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-2\,i\,\sqrt{2}\;(3\,A+4\,B+8\,C)\right.$$
$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+2\,\sqrt{2}\;(3\,A+4\,B+8\,C)\;\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$\sqrt{2}\;(3\,A+4\,B+8\,C)\;\text{Log}\left[4+2\,\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$\sqrt{2}\;(3\,A+4\,B+8\,C)\;\text{Log}\left[-2\left(-2+\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$
$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((3\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]-(A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$
$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((3\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\;x,\;4,\;0\right\}$$
$$\frac{a\,(5\,A+6\,B+8\,C)\;\text{ArcTanh}\left[\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\;d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a\,(5\,A+6\,B+8\,C)\;\text{Tan}[c+d\,x]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$
$$\frac{a\,(A+6\,B)\;\text{Sec}[c+d\,x]\;\text{Tan}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$
$$\frac{1}{192\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(-6\,i\,\sqrt{2}\;(5\,A+6\,B+8\,C)\;\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-6\,i\,\sqrt{2}\;(5\,A+6\,B+8\,C)\right.$$
$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+6\,\sqrt{2}\;(5\,A+6\,B+8\,C)\;\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$3\,\sqrt{2}\;(5\,A+6\,B+8\,C)\;\text{Log}\left[4+2\,\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$
$$3\,\sqrt{2}\;(5\,A+6\,B+8\,C)\;\text{Log}\left[-2\left(-2+\sqrt{2}\;\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$
$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{24\,(A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{12\left((5\,A+6\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]-(3\,A+2\,B+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+$$
$$\left.\frac{24\,(A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{12\left((5\,A+6\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]+(3\,A+2\,B+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a\,(35\,A+40\,B+48\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,(35\,A+40\,B+48\,C)\,\mathrm{Tan}[c+d\,x]}{64\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,(35\,A+40\,B+48\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{96\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,(A+8\,B)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-35\,A-40\,B-48\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{i\,(-35\,A-40\,B-48\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{(35\,A+40\,B+48\,C)\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{128\,\sqrt{2}\,d}+$$

$$\frac{(-35\,A-40\,B-48\,C)\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{256\,\sqrt{2}\,d}+$$

$$\frac{(-35\,A-40\,B-48\,C)\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{256\,\sqrt{2}\,d}+$$

$$\frac{A\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(7\,A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]-A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+8\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(35\,A\,\text{Cos}\left[\frac{c}{2}\right]+40\,B\,\text{Cos}\left[\frac{c}{2}\right]+48\,C\,\text{Cos}\left[\frac{c}{2}\right]-13\,A\,\text{Sin}\left[\frac{c}{2}\right]-24\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{16\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-7\,A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]-A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{96\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+8\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-35\,A\,\text{Cos}\left[\frac{c}{2}\right]-40\,B\,\text{Cos}\left[\frac{c}{2}\right]-48\,C\,\text{Cos}\left[\frac{c}{2}\right]-13\,A\,\text{Sin}\left[\frac{c}{2}\right]-24\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x],\ x,\ 4,\ 0\right\}$$

$$\frac{2\sqrt{2}\,a^2 A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d x]}}+\frac{2a^2(15A+20B+12C)\,\text{Sin}[c+d x]}{15d\sqrt{a+a\,\text{Cos}[c+d x]}}+$$
$$\frac{2a(5B+3C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{15d}+\frac{2C(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{5d}$$

???

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^2,\ x,\ 4,\ 0\right\}$$

$$\frac{\sqrt{2}\,a^2(3A+2B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{a^2(3A-6B-8C)\,\text{Sin}[c+d x]}{3d\sqrt{a+a\,\text{Cos}[c+d x]}}-$$
$$\frac{a(3A-2C)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3d}+\frac{A(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Tan}[c+d x]}{d}$$

$$\frac{1}{48d}(a(1+\text{Cos}[c+d x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\left(6\sqrt{2}\,(3A+2B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+\right.$$

$$24(2B+3C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+\frac{6i(3A+2B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\text{Sin}\left[\frac{1}{4}(c+d x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{6i(3A+2B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d x)\right]-\text{Sin}\left[\frac{1}{4}(c+d x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{3(3A+2B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{3(3A+2B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$8C\,\text{Cos}\left[\frac{3d x}{2}\right]\text{Sin}\left[\frac{3c}{2}\right]+24(2B+3C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d x}{2}\right]+8C\,\text{Cos}\left[\frac{3c}{2}\right]\text{Sin}\left[\frac{3d x}{2}\right]+$$

$$\left.\frac{12A}{\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]}-\frac{12A}{\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{a^2(7A+12B+8C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d x]}}-\frac{a^2(5A+4B-8C)\,\text{Sin}[c+d x]}{4d\sqrt{a+a\,\text{Cos}[c+d x]}}+$$
$$\frac{a(3A+4B)\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Tan}[c+d x]}{4d}+\frac{A(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]\,\text{Tan}[c+d x]}{2d}$$

$$\frac{1}{64\,d}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\left(-2\,i\sqrt{2}\,(7\,A+12\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-\right.$$

$$2\,i\sqrt{2}\,(7\,A+12\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+2\sqrt{2}\,(7\,A+12\,B+8\,C)$$

$$\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-\sqrt{2}\,(7\,A+12\,B+8\,C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$\sqrt{2}\,(7\,A+12\,B+8\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+64\,C\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+$$

$$64\,C\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$

$$\frac{4\left((7\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]-(5\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+$$

$$\left.\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{4\left((7\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(5\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\ x,\ 4,\ 0\right\}$$

$$\frac{a^2\,(11\,A+14\,B+24\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{4\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(19\,A+30\,B+24\,C)\,\text{Tan}[c+d\,x]}{24\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,(A+2\,B)\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{4\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{384\,d}(a(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\left(-6\,i\sqrt{2}\,(11\,A+14\,B+24\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-\right.$$

$$6\,i\sqrt{2}\,(11\,A+14\,B+24\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+6\sqrt{2}\,(11\,A+14\,B+24\,C)$$

$$\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-3\sqrt{2}\,(11\,A+14\,B+24\,C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$

$$3\sqrt{2}\,(11\,A+14\,B+24\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}+\frac{24\,(3\,A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$

$$\frac{12\left((11\,A+14\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]-(5\,A+10\,B+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}+$$

$$\left.\frac{24\,(3\,A+2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{12\left((11\,A+14\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]+(5\,A+10\,B+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a^2\,(75\,A+88\,B+112\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{32\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a^2\,(75\,A+88\,B+112\,C)\,\text{Tan}[c+d\,x]}{64\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(39\,A+56\,B+48\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{96\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,(3\,A+8\,B)\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{24\,d}+\frac{A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-75\,A-88\,B-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{i\,(-75\,A-88\,B-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(75\,A+88\,B+112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{256\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-88\,B-112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{(-75\,A-88\,B-112\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3}{512\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(15\,A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]-9\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+24\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(75\,A\,\text{Cos}\left[\frac{c}{2}\right]+88\,B\,\text{Cos}\left[\frac{c}{2}\right]+112\,C\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-40\,B\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Sin}\left[\frac{d\,x}{2}\right]}{32\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-15\,A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]-9\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{192\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+24\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{128\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(-75\,A\,\text{Cos}\left[\frac{c}{2}\right]-88\,B\,\text{Cos}\left[\frac{c}{2}\right]-112\,C\,\text{Cos}\left[\frac{c}{2}\right]-37\,A\,\text{Sin}\left[\frac{c}{2}\right]-40\,B\,\text{Sin}\left[\frac{c}{2}\right]-80\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\ x,\ 6,\ 0\right\}$$

$$\frac{a^2 (133 A + 150 B + 176 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{64 \sqrt{2} d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^2 (133 A + 150 B + 176 C) \text{Tan}[c + d x]}{128 d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a^2 (133 A + 150 B + 176 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{192 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^2 (67 A + 90 B + 80 C) \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{240 d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a (3 A + 10 B) \sqrt{a + a \text{Cos}[c + d x]} \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{40 d} + \frac{A (a + a \text{Cos}[c + d x])^{3/2} \text{Sec}[c + d x]^4 \text{Tan}[c + d x]}{5 d}$$

$$\frac{1}{61440 d} (a (1 + \text{Cos}[c + d x]))^{3/2} \text{Sec}\left[\frac{1}{2} (c + d x)\right]^3$$

$$\left(-60 i \sqrt{2} (133 A + 150 B + 176 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(-1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] - \right.$$

$$60 i \sqrt{2} (133 A + 150 B + 176 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(-1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] + 60 \sqrt{2} (133 A + 150 B + 176 C)$$

$$\text{Log}\left[\sqrt{2} + 2 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 30 \sqrt{2} (133 A + 150 B + 176 C) \text{Log}\left[4 + 2 \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] - 2 \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] -$$

$$30 \sqrt{2} (133 A + 150 B + 176 C) \text{Log}\left[-2 \left(-2 + \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] + \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)\right] +$$

$$2 (13313 A + 11550 B + 10480 C + 12 (1273 A + 1070 B + 880 C) \text{Cos}[c + d x] + 4 (3059 A + 3450 B + 3280 C) \text{Cos}[2 (c + d x)] +$$
$$2660 A \text{Cos}[3 (c + d x)] + 3000 B \text{Cos}[3 (c + d x)] + 3520 C \text{Cos}[3 (c + d x)] + 1995 A \text{Cos}[4 (c + d x)] +$$
$$\left. 2250 B \text{Cos}[4 (c + d x)] + 2640 C \text{Cos}[4 (c + d x)]) \text{Sec}[c + d x]^5 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)$$

Timed out after 60 seconds:

$$\left\{(a + a \text{Cos}[c + d x])^{5/2} \left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x], x, 5, 0\right\}$$

$$\frac{2 \sqrt{2} a^3 A \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{2 a^3 (245 A + 224 B + 160 C) \text{Sin}[c + d x]}{105 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{2 a^2 (35 A + 56 B + 40 C) \sqrt{a + a \text{Cos}[c + d x]} \text{Sin}[c + d x]}{105 d} +$$

$$\frac{2 a (7 B + 5 C) (a + a \text{Cos}[c + d x])^{3/2} \text{Sin}[c + d x]}{35 d} + \frac{2 C (a + a \text{Cos}[c + d x])^{5/2} \text{Sin}[c + d x]}{7 d}$$

???

Incorrect antiderivative:

$$\left\{(a + a \text{Cos}[c + d x])^{5/2} \left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^2, x, 5, 0\right\}$$

$$\frac{\sqrt{2} a^3 (5 A + 2 B) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a^3 (15 A + 70 B + 64 C) \text{Sin}[c + d x]}{15 d \sqrt{a + a \text{Cos}[c + d x]}} - \frac{a^2 (15 A - 10 B - 16 C) \sqrt{a + a \text{Cos}[c + d x]} \text{Sin}[c + d x]}{15 d} -$$

$$\frac{a (5 A - 2 C) (a + a \text{Cos}[c + d x])^{3/2} \text{Sin}[c + d x]}{5 d} + \frac{A (a + a \text{Cos}[c + d x])^{5/2} \text{Tan}[c + d x]}{d}$$

$$\frac{1}{480\,d}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5$$
$$\left(-30\,i\sqrt{2}\,(5\,A+2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-30\,i\sqrt{2}\,(5\,A+2\,B)\right.$$
$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+30\sqrt{2}\,(5\,A+2\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$
$$15\sqrt{2}\,(5\,A+2\,B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$
$$15\sqrt{2}\,(5\,A+2\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+$$
$$120\,(2\,A+5\,(B+C))\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+20\,(2\,B+5\,C)\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]+$$
$$12\,C\,\text{Cos}\left[\frac{5\,d\,x}{2}\right]\text{Sin}\left[\frac{5\,c}{2}\right]+120\,(2\,A+5\,(B+C))\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+20\,(2\,B+5\,C)\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]+$$
$$\left.12\,C\,\text{Cos}\left[\frac{5\,c}{2}\right]\text{Sin}\left[\frac{5\,d\,x}{2}\right]+\frac{60\,A}{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}-\frac{60\,A}{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\right\}$$
$$\frac{a^3\,(19\,A+20\,B+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]}{2\sqrt{2}\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$
$$\frac{a^3\,(27\,A-12\,B-56\,C)\,\text{Sin}[c+d\,x]}{12\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{a^2\,(21\,A+12\,B-8\,C)\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,d}+$$
$$\frac{a\,(5\,A+4\,B)\left(a+a\,\text{Cos}[c+d\,x]\right)^{3/2}\text{Tan}[c+d\,x]}{4\,d}+\frac{A\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{384\,d}$$
$$\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\left(-6\,i\sqrt{2}\,(19\,A+20\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]-\right.$$
$$6\,i\sqrt{2}\,(19\,A+20\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}(c+d\,x)\right]}\right]+6\sqrt{2}\,(19\,A+20\,B+8\,C)$$
$$\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-3\sqrt{2}\,(19\,A+20\,B+8\,C)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]-$$
$$3\sqrt{2}\,(19\,A+20\,B+8\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]+96\,(2\,B+5\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]+$$
$$32\,C\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]+96\,(2\,B+5\,C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]+32\,C\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]+$$
$$\frac{24\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{12\left((11\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]-(9\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+$$
$$\left.\frac{24\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{12\left((11\,A+4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(9\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$\frac{a^3\,(25\,A+38\,B+40\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{a^3\,(49\,A+54\,B-24\,C)\,\mathrm{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,(31\,A+42\,B+24\,C)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{24\,d}+$$

$$\frac{a\,(5\,A+6\,B)\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{768\,d}$$

$$(a\,(1+\mathrm{Cos}[c+d\,x]))^{5/2}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-6\,i\,\sqrt{2}\,(25\,A+38\,B+40\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-\right.$$

$$6\,i\,\sqrt{2}\,(25\,A+38\,B+40\,C)\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\mathrm{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+6\,\sqrt{2}\,(25\,A+38\,B+40\,C)$$

$$\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-3\,\sqrt{2}\,(25\,A+38\,B+40\,C)\,\mathrm{Log}\left[4+2\,\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-$$

$$3\,\sqrt{2}\,(25\,A+38\,B+40\,C)\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+384\,C\,\mathrm{Cos}\left[\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{c}{2}\right]+$$

$$384\,C\,\mathrm{Cos}\left[\frac{c}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]+\frac{16\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{24\,(5\,A+2\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{12\left((25\,A+22\,B+8\,C)\,\mathrm{Cos}\left[\frac{c}{2}\right]-(15\,A+18\,B+8\,C)\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+$$

$$\left.\frac{24\,(5\,A+2\,B)\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{12\left((25\,A+22\,B+8\,C)\,\mathrm{Cos}\left[\frac{c}{2}\right]+(15\,A+18\,B+8\,C)\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 5,\ 0\right\}$$

$$\frac{a^3\,(163\,A+200\,B+304\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a^3\,(299\,A+392\,B+432\,C)\,\mathrm{Tan}[c+d\,x]}{192\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,(17\,A+24\,B+16\,C)\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{32\,d}+$$

$$\frac{a\,(5\,A+8\,B)\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{24\,d}+\frac{A\,(a+a\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{i\,(-163\,A-200\,B-304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{i\,(-163\,A-200\,B-304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(163\,A+200\,B+304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{512\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-200\,B-304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{(-163\,A-200\,B-304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{1024\,\sqrt{2}\,d}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(23\,A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+40\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(163\,A\,\text{Cos}\left[\frac{c}{2}\right]+200\,B\,\text{Cos}\left[\frac{c}{2}\right]+176\,C\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-120\,B\,\text{Sin}\left[\frac{c}{2}\right]-144\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sin}\left[\frac{d\,x}{2}\right]}{64\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(-23\,A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]-17\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{384\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(43\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+40\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{256\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(-163\,A\,\text{Cos}\left[\frac{c}{2}\right]-200\,B\,\text{Cos}\left[\frac{c}{2}\right]-176\,C\,\text{Cos}\left[\frac{c}{2}\right]-77\,A\,\text{Sin}\left[\frac{c}{2}\right]-120\,B\,\text{Sin}\left[\frac{c}{2}\right]-144\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{512\,d\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\ x,\ 6,\ 0\right\}$$

$$\frac{a^3 (283 A + 326 B + 400 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{64 \sqrt{2} d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^3 (283 A + 326 B + 400 C) \text{Tan}[c + d x]}{128 d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a^3 (787 A + 950 B + 1040 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{960 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^2 (79 A + 110 B + 80 C) \sqrt{a + a \text{Cos}[c + d x]} \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{240 d} +$$

$$\frac{a (A + 2 B) (a + a \text{Cos}[c + d x])^{3/2} \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{8 d} + \frac{A (a + a \text{Cos}[c + d x])^{5/2} \text{Sec}[c + d x]^4 \text{Tan}[c + d x]}{5 d}$$

$$\frac{1}{122880 d} (a (1 + \text{Cos}[c + d x]))^{5/2} \text{Sec}\left[\frac{1}{2} (c + d x)\right]^5$$

$$\left(-60 i \sqrt{2} (283 A + 326 B + 400 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(-1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] - \right.$$

$$60 i \sqrt{2} (283 A + 326 B + 400 C) \text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4} (c + d x)\right] - \left(1 + \sqrt{2}\right) \text{Sin}\left[\frac{1}{4} (c + d x)\right]}{\left(-1 + \sqrt{2}\right) \text{Cos}\left[\frac{1}{4} (c + d x)\right] - \text{Sin}\left[\frac{1}{4} (c + d x)\right]}\right] + 60 \sqrt{2} (283 A + 326 B + 400 C)$$

$$\text{Log}\left[\sqrt{2} + 2 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 30 \sqrt{2} (283 A + 326 B + 400 C) \text{Log}\left[4 + 2 \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] - 2 \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] -$$

$$30 \sqrt{2} (283 A + 326 B + 400 C) \text{Log}\left[-2 \left(-2 + \sqrt{2} \text{Cos}\left[\frac{1}{2} (c + d x)\right] + \sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)\right] +$$

$$2 (24863 A + 22030 B + 20560 C + 12 (2343 A + 1950 B + 1360 C) \text{Cos}[c + d x] + 4 (6509 A + 6730 B + 6640 C) \text{Cos}[2 (c + d x)] +$$

$$5660 A \text{Cos}[3 (c + d x)] + 6520 B \text{Cos}[3 (c + d x)] + 5440 C \text{Cos}[3 (c + d x)] + 4245 A \text{Cos}[4 (c + d x)] +$$

$$\left.4890 B \text{Cos}[4 (c + d x)] + 6000 C \text{Cos}[4 (c + d x)]) \text{Sec}[c + d x]^5 \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + a \text{Cos}[c + d x])^{5/2} \left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^7, x, 7, 0\right\}$$

$$\frac{a^3 (1015 A + 1132 B + 1304 C) \text{ArcTanh}\left[\sqrt{2} \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] \text{Cos}\left[\frac{1}{2} (c + d x)\right]}{256 \sqrt{2} d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a^3 (1015 A + 1132 B + 1304 C) \text{Tan}[c + d x]}{512 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^3 (1015 A + 1132 B + 1304 C) \text{Sec}[c + d x] \text{Tan}[c + d x]}{768 d \sqrt{a + a \text{Cos}[c + d x]}} +$$

$$\frac{a^3 (545 A + 628 B + 680 C) \text{Sec}[c + d x]^2 \text{Tan}[c + d x]}{960 d \sqrt{a + a \text{Cos}[c + d x]}} + \frac{a^2 (115 A + 156 B + 120 C) \sqrt{a + a \text{Cos}[c + d x]} \text{Sec}[c + d x]^3 \text{Tan}[c + d x]}{480 d} +$$

$$\frac{a (5 A + 12 B) (a + a \text{Cos}[c + d x])^{3/2} \text{Sec}[c + d x]^4 \text{Tan}[c + d x]}{60 d} + \frac{A (a + a \text{Cos}[c + d x])^{5/2} \text{Sec}[c + d x]^5 \text{Tan}[c + d x]}{6 d}$$

$$\frac{i\,(-1015\,A-1132\,B-1304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{4096\,\sqrt{2}\,d}+$$

$$\frac{i\,(-1015\,A-1132\,B-1304\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{4096\,\sqrt{2}\,d}+$$

$$\frac{(1015\,A+1132\,B+1304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{4096\,\sqrt{2}\,d}+$$

$$\frac{(-1015\,A-1132\,B-1304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8192\,\sqrt{2}\,d}+$$

$$\frac{(-1015\,A-1132\,B-1304\,C)\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5}{8192\,\sqrt{2}\,d}+$$

$$\frac{1}{983\,040\,d}\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Sec}[c+d\,x]^6\left(-47\,250\,A\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-78\,120\,B\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\right.$$
$$96\,720\,C\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+184\,490\,A\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+167\,944\,B\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+164\,240\,C\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+$$
$$28\,275\,A\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+13\,980\,B\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]-7560\,C\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+88\,305\,A\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]+$$
$$98\,484\,B\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]+101\,160\,C\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]+5075\,A\,\text{Sin}\left[\frac{9\,c}{2}+\frac{9\,d\,x}{2}\right]+5660\,B\,\text{Sin}\left[\frac{9\,c}{2}+\frac{9\,d\,x}{2}\right]+$$
$$\left.6520\,C\,\text{Sin}\left[\frac{9\,c}{2}+\frac{9\,d\,x}{2}\right]+15\,225\,A\,\text{Sin}\left[\frac{11\,c}{2}+\frac{11\,d\,x}{2}\right]+16\,980\,B\,\text{Sin}\left[\frac{11\,c}{2}+\frac{11\,d\,x}{2}\right]+19\,560\,C\,\text{Sin}\left[\frac{11\,c}{2}+\frac{11\,d\,x}{2}\right]\right)$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{2\,(A-B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,C\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

???

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^2}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$\frac{2\,(A-B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\sqrt{2}\,(A-2\,B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\text{Tan}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\left(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,(c+d\,x)]\right)}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Cos}[c+d\,x]^2\left(C+B\,\text{Sec}[c+d\,x]+A\,\text{Sec}[c+d\,x]^2\right)$$

$$\Bigg(-8\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+8\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-$$

$$2\sqrt{2}\,(A-2\,B)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\frac{2\,i\,(A-2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{2\,i\,(A-2\,B)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{(A-2\,B)\,\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{(A-2\,B)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{4\,A}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,(A-B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(7\,A-4\,B+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(A-4\,B)\,\text{Tan}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{16\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg(32\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-$$

$$32\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+2\,\sqrt{2}\,(7\,A-4\,B+8\,C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$\frac{2\,i\,(7\,A-4\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{2\,i\,(7\,A-4\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A-4\,B+8\,C)\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{(7\,A-4\,B+8\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{4\left((A-4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(-3\,A+4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\frac{8\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\left((A-4\,B)\,\text{Cos}\left[\frac{c}{2}\right]+(3\,A-4\,B)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,(A-B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(9\,A-14\,B+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(7\,A-2\,B+8\,C)\,\text{Tan}[c+d\,x]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(A-6\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{96\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(6\,i\,\sqrt{2}\,(9\,A-14\,B+8\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]+6\,i\,\sqrt{2}\,(9\,A-14\,B+8\,C)\right.$$

$$\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]}\right]-192\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]+$$

$$192\,(A-B+C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{4}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{4}\,(c+d\,x)\right]\right]-6\,\sqrt{2}\,(9\,A-14\,B+8\,C)\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$3\,\sqrt{2}\,(9\,A-14\,B+8\,C)\,\text{Log}\left[4+2\,\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$3\,\sqrt{2}\,(9\,A-14\,B+8\,C)\,\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]+$$

$$\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-\frac{24\,(A-2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{12\left((7\,A-2\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]+(-9\,A+6\,B-8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}-\frac{16\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-$$

$$\left.\frac{24\,(A-2\,B)\,\text{Sin}\left[\frac{d\,x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{12\left((7\,A-2\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}\right]+(9\,A-6\,B+8\,C)\,\text{Sin}\left[\frac{c}{2}\right]\right)}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^5}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,(A-B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(107\,A-72\,B+112\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{32\,\sqrt{2}\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(21\,A-56\,B+16\,C)\,\text{Tan}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(43\,A-8\,B+48\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(A-8\,B)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{i\,(-107\,A+72\,B-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{i\,(-107\,A+72\,B-112\,C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{2\,(A-B+C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}-\frac{2\,(A-B+C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{(107\,A-72\,B+112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{64\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{(-107\,A+72\,B-112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[2\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]}{128\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{(-107\,A+72\,B-112\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]}{128\sqrt{2}\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}+$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-A\,\text{Cos}\left[\frac{c}{2}\right]+8\,B\,\text{Cos}\left[\frac{c}{2}\right]+7\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{48\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-8\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{32\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-21\,A\,\text{Cos}\left[\frac{c}{2}\right]+56\,B\,\text{Cos}\left[\frac{c}{2}\right]-16\,C\,\text{Cos}\left[\frac{c}{2}\right]+59\,A\,\text{Sin}\left[\frac{c}{2}\right]-72\,B\,\text{Sin}\left[\frac{c}{2}\right]+48\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{8\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^4}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Cos}\left[\frac{c}{2}\right]-8\,B\,\text{Cos}\left[\frac{c}{2}\right]+7\,A\,\text{Sin}\left[\frac{c}{2}\right]-8\,B\,\text{Sin}\left[\frac{c}{2}\right]\right)}{48\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^3}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-8\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+16\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{32\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(21\,A\,\text{Cos}\left[\frac{c}{2}\right]-56\,B\,\text{Cos}\left[\frac{c}{2}\right]+16\,C\,\text{Cos}\left[\frac{c}{2}\right]+59\,A\,\text{Sin}\left[\frac{c}{2}\right]-72\,B\,\text{Sin}\left[\frac{c}{2}\right]+48\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{64\,d\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 4,\ 0\right\}$$

$$-\frac{(5A-B-3C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{2\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{ad\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Sin}[c+dx]}{2d\,(a+a\,\text{Cos}[c+dx])^{3/2}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(9A-5B+C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{\sqrt{2}\,(3A-2B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{ad\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Tan}[c+dx]}{2d\,(a+a\,\text{Cos}[c+dx])^{3/2}}+\frac{(3A-B+C)\,\text{Tan}[c+dx]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$-\frac{2\,(9A-5B+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])}+$$

$$\frac{2\,(9A-5B+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])}-$$

$$\frac{2\sqrt{2}\,(3A-2B)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])}-$$

$$\left(2\,i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\right.$$

$$\left.\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)\left(3\sqrt{2}\,A-2\sqrt{2}\,B-6\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(2\,i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\right.$$

$$\left.\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)\left(3\sqrt{2}\,A-2\sqrt{2}\,B-6\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\,\mathrm{Log}\left[2\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\right.$$

$$\left.\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)\left(3\sqrt{2}\,A-2\sqrt{2}\,B-6\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\right.$$

$$\left.\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)\left(3\sqrt{2}\,A-2\sqrt{2}\,B-6\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$

$$\left(d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\frac{(A-B+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{(-A+B-C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}-$$

$$\frac{4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2c+2dx])\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{(13\,A-9\,B+5\,C)\,\mathrm{ArcTanh}\left[\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{(19\,A-12\,B+8\,C)\,\mathrm{ArcTanh}\left[\sqrt{2}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-\frac{(7\,A-6\,B+2\,C)\,\mathrm{Tan}[c+d\,x]}{4\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{(2\,A-B+C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{(13A-9B+5C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{(-13A+9B-5C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+\frac{(19A-12B+8C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[\sqrt{2}+2\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right]}{2\sqrt{2}\,d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{-\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(19\sqrt{2}\,A-12\sqrt{2}\,B+8\sqrt{2}\,C-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]-16C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{4d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{i\,\mathrm{ArcTan}\left[\frac{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}{\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]}\right]\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(19\sqrt{2}\,A-12\sqrt{2}\,B+8\sqrt{2}\,C-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]-16C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{4d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[2\left(2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(19\sqrt{2}\,A-12\sqrt{2}\,B+8\sqrt{2}\,C-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]-16C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/\left(8d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Log}\left[-2\left(-2+\sqrt{2}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)\right]\left(19\sqrt{2}\,A-12\sqrt{2}\,B+8\sqrt{2}\,C-38A\,\mathrm{Sin}\left[\frac{c}{2}\right]+24B\,\mathrm{Sin}\left[\frac{c}{2}\right]-16C\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/\left(8d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(-1+\sqrt{2}\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)\right)+\frac{(-A+B-C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]-\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{(A-B+C)\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{4}+\frac{dx}{4}\right]+\mathrm{Sin}\left[\frac{c}{4}+\frac{dx}{4}\right]\right)^2}+$$

$$\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(-5A\,\mathrm{Cos}\left[\frac{c}{2}\right]+4B\,\mathrm{Cos}\left[\frac{c}{2}\right]+7A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}+$$

$$\frac{A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)^2}+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\left(5A\,\mathrm{Cos}\left[\frac{c}{2}\right]-4B\,\mathrm{Cos}\left[\frac{c}{2}\right]+7A\,\mathrm{Sin}\left[\frac{c}{2}\right]-4B\,\mathrm{Sin}\left[\frac{c}{2}\right]\right)}{2d\,(a\,(1+\mathrm{Cos}[c+dx]))^{3/2}\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{dx}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^4}{(a+a\,\mathrm{Cos}[c+dx])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(17A-13B+9C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{2ad\sqrt{a+a\,\text{Cos}[c+dx]}}-$$

$$\frac{(47A-38B+24C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{4\sqrt{2}\,ad\sqrt{a+a\,\text{Cos}[c+dx]}}+\frac{(21A-14B+12C)\,\text{Tan}[c+dx]}{8ad\sqrt{a+a\,\text{Cos}[c+dx]}}-$$

$$\frac{(13A-12B+6C)\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{12ad\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{2d\,(a+a\,\text{Cos}[c+dx])^{3/2}}+\frac{(5A-3B+3C)\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{6ad\sqrt{a+a\,\text{Cos}[c+dx]}}$$

$$\frac{1}{48d\,(a\,(1+\text{Cos}[c+dx]))^{3/2}}\text{Cos}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(-48(17A-13B+9C)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Log}\left[\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]\right]+48(17A-13B+9C)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2$$

$$\text{Log}\left[\text{Cos}\left[\frac{1}{4}(c+dx)\right]+\text{Sin}\left[\frac{1}{4}(c+dx)\right]\right]-6\sqrt{2}\,(47A-38B+24C)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-$$

$$\frac{6i\,(47A-38B+24C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(-1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{6i\,(47A-38B+24C)\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\left(1+\sqrt{2}\right)\text{Sin}\left[\frac{1}{4}(c+dx)\right]}{\left(-1+\sqrt{2}\right)\text{Cos}\left[\frac{1}{4}(c+dx)\right]-\text{Sin}\left[\frac{1}{4}(c+dx)\right]}\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{3(47A-38B+24C)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Log}\left[4+2\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]-2\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}-$$

$$\frac{3(47A-38B+24C)\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Log}\left[-2\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)\right]\left(\sqrt{2}-2\,\text{Sin}\left[\frac{c}{2}\right]\right)}{-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]}+$$

$$(106A-36B+48C+3(55A-26B+36C)\,\text{Cos}[c+dx]+(74A-36B+48C)\,\text{Cos}[2(c+dx)]+$$

$$63A\,\text{Cos}[3(c+dx)]-42B\,\text{Cos}[3(c+dx)]+36C\,\text{Cos}[3(c+dx)])\,\text{Sec}[c+dx]^3\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\Bigg)$$

Timed out after 60 seconds:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]}{(a+a\,\text{Cos}[c+dx])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{(43A-3B-5C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{16a^2d\sqrt{a+a\,\text{Cos}[c+dx]}}+$$

$$\frac{2\sqrt{2}\,A\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]\text{Cos}\left[\frac{1}{2}(c+dx)\right]}{a^2d\sqrt{a+a\,\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Sin}[c+dx]}{4d\,(a+a\,\text{Cos}[c+dx])^{5/2}}-\frac{(11A-3B-5C)\,\text{Sin}[c+dx]}{16ad\,(a+a\,\text{Cos}[c+dx])^{3/2}}$$

???

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(115\,A-43\,B+3\,C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{\sqrt{2}\,(5\,A-2\,B)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(A-B+C)\,\text{Tan}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{(15\,A-7\,B-C)\,\text{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(35\,A-11\,B+3\,C)\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{(-115 A+43 B-3 C) \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \operatorname{Log}\left[\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right] \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right)}{2 d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x])}+$$

$$\frac{(115 A-43 B+3 C) \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \operatorname{Log}\left[\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]\right] \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right)}{2 d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x])}-$$

$$\frac{4 \sqrt{2} (5 A-2 B) \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \operatorname{Log}\left[\sqrt{2}+2 \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right)}{d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x])}-$$

$$\left(4 i \operatorname{ArcTan}\left[\frac{\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]-\sqrt{2} \operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]}{-\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\sqrt{2} \operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]}\right] \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \right.$$
$$\left. \operatorname{Cos}[c+d x]^2 \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right) \left(5 \sqrt{2} A-2 \sqrt{2} B-10 A \operatorname{Sin}\left[\frac{c}{2}\right]+4 B \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right) \Big/$$
$$\left(d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x]) \left(-1+\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(4 i \operatorname{ArcTan}\left[\frac{\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]-\sqrt{2} \operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]}{\operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]+\sqrt{2} \operatorname{Cos}\left[\frac{c}{4}+\frac{d x}{4}\right]-\operatorname{Sin}\left[\frac{c}{4}+\frac{d x}{4}\right]}\right] \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \right.$$
$$\left. \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right) \left(5 \sqrt{2} A-2 \sqrt{2} B-10 A \operatorname{Sin}\left[\frac{c}{2}\right]+4 B \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right) \Big/$$
$$\left(d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x]) \left(-1+\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(2 \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \operatorname{Log}\left[2 \left(2+\sqrt{2} \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)\right] \right.$$
$$\left. \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right) \left(5 \sqrt{2} A-2 \sqrt{2} B-10 A \operatorname{Sin}\left[\frac{c}{2}\right]+4 B \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right) \Big/$$
$$\left(d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x]) \left(-1+\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right)-$$

$$\left(2 \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \operatorname{Cos}[c+d x]^2 \operatorname{Log}\left[-2 \left(-2+\sqrt{2} \operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)\right] \right.$$
$$\left. \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right) \left(5 \sqrt{2} A-2 \sqrt{2} B-10 A \operatorname{Sin}\left[\frac{c}{2}\right]+4 B \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right) \Big/$$
$$\left(d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x]) \left(-1+\sqrt{2} \operatorname{Sin}\left[\frac{c}{2}\right]\right)\right)+$$

$$\left(\operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right] \operatorname{Cos}[c+d x] \left(C+B \operatorname{Sec}[c+d x]+A \operatorname{Sec}[c+d x]^2\right) \right.$$
$$\left(24 A \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+8 B \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]-8 C \operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+75 A \operatorname{Sin}\left[\frac{3 c}{2}+\frac{3 d x}{2}\right]-19 B \operatorname{Sin}\left[\frac{3 c}{2}+\frac{3 d x}{2}\right]+\right.$$
$$\left.\left. 11 C \operatorname{Sin}\left[\frac{3 c}{2}+\frac{3 d x}{2}\right]+35 A \operatorname{Sin}\left[\frac{5 c}{2}+\frac{5 d x}{2}\right]-11 B \operatorname{Sin}\left[\frac{5 c}{2}+\frac{5 d x}{2}\right]+3 C \operatorname{Sin}\left[\frac{5 c}{2}+\frac{5 d x}{2}\right]\right)\right) \Big/$$
$$\left(16 d (a (1+\operatorname{Cos}[c+d x]))^{5/2} (2 A+C+2 B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[2 c+2 d x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^3}{(a+a \operatorname{Cos}[c+d x])^{5/2}}, x, 7, 0\right\}$$

$$-\frac{(219\,A-115\,B+43\,C)\,\text{ArcTanh}\left[\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(39\,A-20\,B+8\,C)\,\text{ArcTanh}\left[\sqrt{2}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\sqrt{2}\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(63\,A-35\,B+11\,C)\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(A-B+C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-\frac{(19\,A-11\,B+3\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(31\,A-15\,B+7\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{(219\,A-115\,B+43\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{(-219\,A+115\,B-43\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]\right]}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+\frac{(39\,A-20\,B+8\,C)\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[\sqrt{2}+2\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]}{\sqrt{2}\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{i\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{-\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(39\,\sqrt{2}\,A-20\,\sqrt{2}\,B+8\,\sqrt{2}\,C-78\,A\,\text{Sin}\left[\frac{c}{2}\right]+40\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{2\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\frac{i\,\text{ArcTan}\left[\frac{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}{\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]+\sqrt{2}\,\text{Cos}\left[\frac{c}{4}+\frac{d\,x}{4}\right]-\text{Sin}\left[\frac{c}{4}+\frac{d\,x}{4}\right]}\right]\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(39\,\sqrt{2}\,A-20\,\sqrt{2}\,B+8\,\sqrt{2}\,C-78\,A\,\text{Sin}\left[\frac{c}{2}\right]+40\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{2\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)}+$$

$$\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[2\,\left(2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\right.$$
$$\left.\left(39\,\sqrt{2}\,A-20\,\sqrt{2}\,B+8\,\sqrt{2}\,C-78\,A\,\text{Sin}\left[\frac{c}{2}\right]+40\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$
$$\left(4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)+\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\text{Log}\left[-2\,\left(-2+\sqrt{2}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)\right]\right.$$
$$\left.\left(39\,\sqrt{2}\,A-20\,\sqrt{2}\,B+8\,\sqrt{2}\,C-78\,A\,\text{Sin}\left[\frac{c}{2}\right]+40\,B\,\text{Sin}\left[\frac{c}{2}\right]-16\,C\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)\Big/$$
$$\left(4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}\,\left(-1+\sqrt{2}\,\text{Sin}\left[\frac{c}{2}\right]\right)\right)-\frac{1}{64\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$
$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Sec}[c+d\,x]^2\,\left(47\,A\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-51\,B\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+27\,C\,\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+79\,A\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]-\right.$$
$$59\,B\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+3\,C\,\text{Sin}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]+127\,A\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]-75\,B\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+$$
$$\left.19\,C\,\text{Sin}\left[\frac{5\,c}{2}+\frac{5\,d\,x}{2}\right]+63\,A\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]-35\,B\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]+11\,C\,\text{Sin}\left[\frac{7\,c}{2}+\frac{7\,d\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,8,\,0\right\}$$

$$\frac{2\,a\,(9\,A+7\,B+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+$$

$$\frac{10\,a\,(11\,A+11\,B+9\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+\frac{10\,a\,(11\,A+11\,B+9\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+$$

$$\frac{2\,a\,(9\,A+7\,B+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{2\,a\,(11\,A+11\,B+9\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{77\,d}+$$

$$\frac{2\,a\,(11\,B+2\,C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{99\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{7/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{11\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(9\,A+7\,B+7\,C)\,\text{Cot}[c]}{15\,d}+\frac{(506\,A+506\,B+435\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{1848\,d}+\frac{(18\,A+19\,B+19\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{180\,d}+\right.$$

$$\frac{(44\,A+44\,B+57\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{1232\,d}+\frac{(B+C)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{72\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{176\,d}+$$

$$\frac{(506\,A+506\,B+435\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{1848\,d}+\frac{(18\,A+19\,B+19\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{180\,d}+$$

$$\left.\frac{(44\,A+44\,B+57\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{1232\,d}+\frac{(B+C)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{72\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{176\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{77\,d\,\sqrt{1+\text{Cot}[c]^2}}\,15\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\;\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,7,\,0\right\}$$

$$\frac{2\,a\,(9\,A+9\,B+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{2\,a\,(7\,A+5\,B+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{2\,a\,(7\,A+5\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a\,(9\,A+9\,B+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+$$

$$\frac{2\,a\,(9\,B+2\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(9\,A+9\,B+7\,C)\,\text{Cot}[c]}{15\,d}+\frac{(28\,A+23\,B+23\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\frac{(18\,A+18\,B+19\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{180\,d}+\right.$$

$$\frac{(B+C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{72\,d}+\frac{(28\,A+23\,B+23\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+$$

$$\left.\frac{(18\,A+18\,B+19\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{180\,d}+\frac{(B+C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{72\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,6,\,0\right\}$$

$$\frac{2\,a\,(5\,A+3\,B+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+$$

$$\frac{2\,a\,(7\,A+7\,B+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{2\,a\,(7\,A+7\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{2\,a\,(7\,B+2\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\right.$$

$$\left(-\frac{(5\,A+3\,B+3\,C)\,\text{Cot}[c]}{5\,d}+\frac{(28\,A+28\,B+23\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{84\,d}+\frac{(B+C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\right.$$

$$\left.\frac{C\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{28\,d}+\frac{(28\,A+28\,B+23\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{84\,d}+\frac{(B+C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}+\frac{C\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{28\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$\frac{2\,a\,(5\,A+5\,B+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(3\,A+B+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+$$

$$\frac{2\,a\,(5\,B+2\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(5\,A+5\,B+3\,C)\,\text{Cot}[c]}{5\,d}+\right.\right.$$

$$\left.\frac{(B+C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{10\,d}+\frac{(B+C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{10\,d}\right)-$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{10\,d}\,3\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\Bigg(\Big(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Big)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,(A-B-C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(3\,A+3\,B+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-$$

$$\frac{2\,a\,(3\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$a\Bigg(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\Bigg(-\frac{(-2\,A+B+C+B\,\text{Cos}[2\,c]+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+$$

$$\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{d}\Bigg)-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,a\,(A+B-C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{d}+\frac{2\,a\,(A+3\,B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+$$

$$\frac{2\,a\,(2\,A+3\,B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-\frac{(-2\,A-2\,B+C+C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{d}+\right.\right.$$

$$\left.\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+3\,A\,\text{Sin}[d\,x]+3\,B\,\text{Sin}[d\,x])}{3\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,6,\,0\right\}$$

$$-\frac{2\,a\,(3\,A+5\,B+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(A+B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}+$$

$$\frac{2\,a\,(2\,A+5\,B)\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(3\,A+5\,B+5\,C)\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\frac{2\,(3\,A+5\,B+5\,C)\,\text{Csc}[2\,c]}{5\,d}+\right.\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{5\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+5\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{15\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(5\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+9\,A\,\text{Sin}[d\,x]+15\,B\,\text{Sin}[d\,x]+15\,C\,\text{Sin}[d\,x])}{15\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,a\,(3\,A+3\,B+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{2\,a\,(5\,A+7\,B+7\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{2\,a\,(2\,A+7\,B)\,\text{Sin}[c+d\,x]}{35\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,a\,(5\,A+7\,B+7\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,(3\,A+3\,B+5\,C)\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}$$

$$a\left(\sqrt{\text{Cos}[c+d\,x]}\,(1+\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\frac{2\,(3\,A+3\,B+5\,C)\,\text{Csc}[2\,c]}{5\,d}+\right.\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{7\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,A\,\text{Sin}[c]+7\,A\,\text{Sin}[d\,x]+7\,B\,\text{Sin}[d\,x])}{35\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(21\,A\,\text{Sin}[c]+21\,B\,\text{Sin}[c]+25\,A\,\text{Sin}[d\,x]+35\,B\,\text{Sin}[d\,x]+35\,C\,\text{Sin}[d\,x])}{105\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(25\,A\,\text{Sin}[c]+35\,B\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+63\,A\,\text{Sin}[d\,x]+63\,B\,\text{Sin}[d\,x]+105\,C\,\text{Sin}[d\,x])}{105\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{10\,d}\,3\,A\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{10\,d}\,3\,B\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,C\,(1+\text{Cos}[c+d\,x])\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,8,\,0\right\}$$

$$\frac{4\,a^2\,(9\,A+8\,B+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+$$

$$\frac{4\,a^2\,(66\,A+55\,B+50\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+\frac{4\,a^2\,(66\,A+55\,B+50\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+$$

$$\frac{4\,a^2\,(9\,A+8\,B+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,d}+\frac{2\,a^2\,(99\,A+121\,B+89\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{693\,d}+$$

$$\frac{2\,a\,(11\,B+4\,C)\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{99\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{11\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(9\,A+8\,B+7\,C)\,\text{Cot}[c]}{15\,d}+\frac{(1122\,A+1012\,B+941\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3696\,d}+\frac{(36\,A+37\,B+38\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{360\,d}+\right.$$

$$\frac{(44\,A+88\,B+101\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{2464\,d}+\frac{(B+2\,C)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{144\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{352\,d}+$$

$$\frac{(1122\,A+1012\,B+941\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{3696\,d}+\frac{(36\,A+37\,B+38\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{360\,d}+$$

$$\left.\frac{(44\,A+88\,B+101\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{2464\,d}+\frac{(B+2\,C)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{144\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{352\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{231\,d\,\sqrt{1+\text{Cot}[c]^2}}\,50\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{10\,d}\,3\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{15\,d}\,4\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{30\,d}\,7\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\left)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,7,\,0\right\}$$

$$\frac{4\,a^2\,(12\,A+9\,B+8\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{4\,a^2\,(7\,A+6\,B+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{4\,a^2\,(7\,A+6\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a^2\,(21\,A+27\,B+19\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{2\,a\,(9\,B+4\,C)\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(12\,A+9\,B+8\,C)\,\text{Cot}[c]}{15\,d}+\frac{(56\,A+51\,B+46\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{168\,d}+\frac{(18\,A+36\,B+37\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{360\,d}+\right.$$

$$\frac{(B+2\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{56\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{144\,d}+\frac{(56\,A+51\,B+46\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{168\,d}+$$

$$\left.\frac{(18\,A+36\,B+37\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{360\,d}+\frac{(B+2\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{56\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{144\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\;\frac{1}{5\,d}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{15\,d}\,4\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{4\,a^2\,(5\,A+4\,B+3\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+$$

$$\frac{4\,a^2\,(14\,A+7\,B+6\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{2\,a^2\,(35\,A+49\,B+33\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{2\,a\,(7\,B+4\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(5\,A+4\,B+3\,C)\,\text{Cot}[c]}{5\,d}+\frac{(28\,A+56\,B+51\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{168\,d}+\frac{(B+2\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{20\,d}+\right.$$

$$\frac{C\,\mathrm{Cos}[3\,d\,x]\,\mathrm{Sin}[3\,c]}{56\,d}+\frac{(28\,A+56\,B+51\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{168\,d}+\frac{(B+2\,C)\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{20\,d}+\frac{C\,\mathrm{Cos}[3\,c]\,\mathrm{Sin}[3\,d\,x]}{56\,d}\Bigg)-$$

$$\frac{1}{3\,d\sqrt{1+\mathrm{Cot}[c]^2}}\,2\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\mathrm{Cot}[c]^2}}\,B\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\;-$$

$$\frac{1}{7\,d\sqrt{1+\mathrm{Cot}[c]^2}}\,2\,C\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\;-\frac{1}{2\,d}\,A\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\Bigg(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}$$

$$\sqrt{1+\mathrm{Tan}[c]^2}\Bigg)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\Bigg)-\frac{1}{5\,d}\,2\,B\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Csc}[c]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\Bigg(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{10\,d}\,3\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,6,\,0\right\}$$

$$\frac{4\,a^2\,(5\,B+4\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^2\,(3\,A+2\,B+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-\frac{2\,a^2\,(15\,A-5\,B-7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}-\frac{2\,a\,(5\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(-5\,A+10\,B+8\,C+5\,A\,\text{Cos}[2\,c]+10\,B\,\text{Cos}[2\,c]+8\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{10\,d}+\frac{(B+2\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\right.$$

$$\left.\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{20\,d}+\frac{(B+2\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]\,\text{Sin}[d\,x]}{2\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{20\,d}\right)-$$

$$\frac{1}{d\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\frac{1}{2\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{5\,d}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{4\,a^2\,(A-C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{d}+\frac{4\,a^2\,(2\,A+3\,B+2\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}-\frac{2\,a^2\,(5\,A+3\,B-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,a\,(4\,A+3\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(-\frac{(-4\,A-B+2\,C+B\,\text{Cos}[2\,c]+2\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{2\,d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{6\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{6\,d}+\right.$$

$$\left.\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{6\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+6\,A\,\text{Sin}[d\,x]+3\,B\,\text{Sin}[d\,x])}{6\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{2\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{2\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{4\,a^2\,(4\,A+5\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^2\,(A+2\,B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,d}+$$

$$\frac{2\,a^2\,(17\,A+25\,B+15\,C)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a\,(4\,A+5\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-\frac{(-16\,A-20\,B-5\,C+5\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{10\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{10\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+10\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{30\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(10\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+24\,A\,\text{Sin}[d\,x]+30\,B\,\text{Sin}[d\,x]+15\,C\,\text{Sin}[d\,x])}{30\,d}\right)-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{5\,d}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{9/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{4\,a^2\,(3\,A+4\,B+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,d}+\frac{4\,a^2\,(6\,A+7\,B+14\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{21\,d}+$$

$$\frac{2\,a^2\,(33\,A+49\,B+35\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{4\,a^2\,(3\,A+4\,B+5\,C)\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(4\,A+7\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\frac{2\,(3\,A+4\,B+5\,C)\,\text{Csc}[2\,c]}{5\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{14\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,A\,\text{Sin}[c]+14\,A\,\text{Sin}[d\,x]+7\,B\,\text{Sin}[d\,x])}{70\,d}+\right.$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(42\,A\,\text{Sin}[c]+21\,B\,\text{Sin}[c]+60\,A\,\text{Sin}[d\,x]+70\,B\,\text{Sin}[d\,x]+35\,C\,\text{Sin}[d\,x])}{210\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(60\,A\,\text{Sin}[c]+70\,B\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+126\,A\,\text{Sin}[d\,x]+168\,B\,\text{Sin}[d\,x]+210\,C\,\text{Sin}[d\,x])}{210\,d}\right)-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,+\frac{1}{10\,d}\,3\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{5\,d}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{2\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{4\,a^2\,(8\,A+9\,B+12\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{4\,a^2\,(5\,A+6\,B+7\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{2\,a^2\,(19\,A+27\,B+21\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{4\,a^2\,(5\,A+6\,B+7\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{4\,a^2\,(8\,A+9\,B+12\,C)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(4\,A+9\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(\frac{2\,(8\,A+9\,B+12\,C)\,\text{Csc}[2\,c]}{15\,d}+\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,\text{Sin}[d\,x]}{18\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(7\,A\,\text{Sin}[c]+18\,A\,\text{Sin}[d\,x]+9\,B\,\text{Sin}[d\,x])}{126\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(90\,A\,\text{Sin}[c]+45\,B\,\text{Sin}[c]+112\,A\,\text{Sin}[d\,x]+126\,B\,\text{Sin}[d\,x]+63\,C\,\text{Sin}[d\,x])}{630\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(25\,A\,\text{Sin}[c]+30\,B\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+56\,A\,\text{Sin}[d\,x]+63\,B\,\text{Sin}[d\,x]+84\,C\,\text{Sin}[d\,x])}{105\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(112\,A\,\text{Sin}[c]+126\,B\,\text{Sin}[c]+63\,C\,\text{Sin}[c]+150\,A\,\text{Sin}[d\,x]+180\,B\,\text{Sin}[d\,x]+210\,C\,\text{Sin}[d\,x])}{630\,d}\right)-$$

$$\frac{1}{21\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{7\,d\,\sqrt{1+\text{Cot}[c]^2}}\,2\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{3\,d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{15\,d}\,4\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{10\,d}\,3\,B\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\Bigg(\Big(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Big)\Big/$$

$$\Big(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{5\,d}\,2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\Bigg(\Big(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Big)\Big/$$

$$\Big(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,9,\,0\right\}$$

$$\frac{4\,a^3\,(221\,A+195\,B+175\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{195\,d}+$$

$$\frac{4\,a^3\,(121\,A+105\,B+95\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+\frac{4\,a^3\,(121\,A+105\,B+95\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+$$

$$\frac{4\,a^3\,(221\,A+195\,B+175\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{585\,d}+\frac{20\,a^3\,(286\,A+273\,B+236\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{9009\,d}+$$

$$\frac{2\,a^2\,(143\,A+195\,B+145\,C)\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{1287\,d}+$$

$$\frac{2\,a\,(13\,B+6\,C)\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{143\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{13\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(221\,A+195\,B+175\,C)\,\text{Cot}[c]}{390\,d}+\frac{(2134\,A+1953\,B+1811\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{7392\,d}+\frac{(7592\,A+7800\,B+7825\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{74\,880\,d}+\right.$$

$$\frac{(132\,A+189\,B+215\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{4928\,d}+\frac{(13\,A+39\,B+59\,C)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{3744\,d}+$$

$$\frac{(B+3\,C)\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{704\,d}+\frac{C\,\text{Cos}[6\,d\,x]\,\text{Sin}[6\,c]}{1664\,d}+\frac{(2134\,A+1953\,B+1811\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{7392\,d}+$$

$$\frac{(7592\,A+7800\,B+7825\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{74\,880\,d}+\frac{(132\,A+189\,B+215\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{4928\,d}+$$

$$\left.\frac{(13\,A+39\,B+59\,C)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{3744\,d}+\frac{(B+3\,C)\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{704\,d}+\frac{C\,\text{Cos}[6\,c]\,\text{Sin}[6\,d\,x]}{1664\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{22\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{462\,d\,\sqrt{1+\text{Cot}[c]^2}}\,95\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{60\,d}\,17\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,\left(-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)-\frac{1}{4\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,\left(-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)-\frac{1}{156\,d}\,35\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[$$

$$c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,\left(-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,8,\,0\right\}$$

$$\frac{4\,a^3\,(21\,A+17\,B+15\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{4\,a^3\,(143\,A+121\,B+105\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+$$

$$\frac{4\,a^3\,(143\,A+121\,B+105\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d}+\frac{4\,a^3\,(264\,A+253\,B+210\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{1155\,d}+$$

$$\frac{2\,a^2\,(99\,A+143\,B+105\,C)\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{693\,d}+$$

$$\frac{2\,a\,(11\,B+6\,C)\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{99\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{11\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(21\,A+17\,B+15\,C)\,\text{Cot}[c]}{30\,d}+\frac{(2354\,A+2134\,B+1953\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{7392\,d}+\frac{(54\,A+73\,B+75\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\right.$$

$$\frac{(44\,A+132\,B+189\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{4928\,d}+\frac{(B+3\,C)\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\frac{C\,\text{Cos}[5\,d\,x]\,\text{Sin}[5\,c]}{704\,d}+$$

$$\frac{(2354\,A+2134\,B+1953\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{7392\,d}+\frac{(54\,A+73\,B+75\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+$$

$$\left.\frac{(44\,A+132\,B+189\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{4928\,d}+\frac{(B+3\,C)\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}+\frac{C\,\text{Cos}[5\,c]\,\text{Sin}[5\,d\,x]}{704\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{22\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-\frac{1}{20\,d}\,7\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{60\,d}\,17\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\Bigg(\Bigg(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Bigg)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{4\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\Bigg(\Bigg(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Bigg)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{4\,a^3\,(27\,A+21\,B+17\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{4\,a^3\,(21\,A+13\,B+11\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{4\,a^3\,(42\,A+41\,B+32\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d}+\frac{2\,a^2\,(63\,A+99\,B+73\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{315\,d}+$$

$$\frac{2\,a\,(3\,B+2\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{9\,d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(27\,A+21\,B+17\,C)\,\text{Cot}[c]}{30\,d}+\frac{(84\,A+107\,B+97\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\frac{(18\,A+54\,B+73\,C)\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{720\,d}+\right.$$

$$\frac{(B+3\,C)\,\text{Cos}[3\,d\,x]\,\text{Sin}[3\,c]}{112\,d}+\frac{C\,\text{Cos}[4\,d\,x]\,\text{Sin}[4\,c]}{288\,d}+\frac{(84\,A+107\,B+97\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{336\,d}+$$

$$\left.\frac{(18\,A+54\,B+73\,C)\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{720\,d}+\frac{(B+3\,C)\,\text{Cos}[3\,c]\,\text{Sin}[3\,d\,x]}{112\,d}+\frac{C\,\text{Cos}[4\,c]\,\text{Sin}[4\,d\,x]}{288\,d}\right)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,11\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-\;\frac{1}{20\,d}\,9\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{20\,d}\,7\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{60\,d}\,17\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{4\,a^3\,(5\,A+9\,B+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,(35\,A+21\,B+13\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}-$$

$$\frac{4\,a^3\,(35\,A-42\,B-41\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d}-\frac{2\,a^2\,(35\,A-7\,B-11\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d}-$$

$$\frac{2\,a\,(7\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(-\frac{(5\,A+18\,B+14\,C+15\,A\,\text{Cos}[2\,c]+18\,B\,\text{Cos}[2\,c]+14\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{(28\,A+84\,B+107\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{336\,d}+\right.$$

$$\frac{(B+3C)\,\mathrm{Cos}[2dx]\,\mathrm{Sin}[2c]}{40d}+\frac{C\,\mathrm{Cos}[3dx]\,\mathrm{Sin}[3c]}{112d}+\frac{(28A+84B+107C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[dx]}{336d}+$$

$$\left.\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,\mathrm{Sin}[dx]}{4d}+\frac{(B+3C)\,\mathrm{Cos}[2c]\,\mathrm{Sin}[2dx]}{40d}+\frac{C\,\mathrm{Cos}[3c]\,\mathrm{Sin}[3dx]}{112d}\right)-$$

$$\frac{1}{6d\sqrt{1+\mathrm{Cot}[c]^2}}5A\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sec}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}-$$

$$\frac{1}{2d\sqrt{1+\mathrm{Cot}[c]^2}}B\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sec}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}-$$

$$\frac{1}{42d\sqrt{1+\mathrm{Cot}[c]^2}}13C\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\mathrm{Sec}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[dx-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}-\frac{1}{4d}A\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{20d}9B\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$

$$\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[dx+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,\left(-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)-\frac{1}{20\,d}\,7\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,\left(-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4\,a^3\,(5\,A-5\,B-9\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,(5\,A+5\,B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-\frac{4\,a^3\,(20\,A+5\,B-6\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}-\frac{2\,a^2\,(35\,A+15\,B-3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a\,(2\,A+B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(-\frac{(-25\,A+5\,B+18\,C+5\,A\,\text{Cos}[2\,c]+15\,B\,\text{Cos}[2\,c]+18\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{(B+3\,C)\,\text{Cos}[d\,x]\,\text{Sin}[c]}{12\,d}+\frac{C\,\text{Cos}[2\,d\,x]\,\text{Sin}[2\,c]}{40\,d}+\frac{(B+3\,C)\,\text{Cos}[c]\,\text{Sin}[d\,x]}{12\,d}+\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{12\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(A\,\text{Sin}[c]+9\,A\,\text{Sin}[d\,x]+3\,B\,\text{Sin}[d\,x])}{12\,d}+\frac{C\,\text{Cos}[2\,c]\,\text{Sin}[2\,d\,x]}{40\,d}\right)-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{6\,d\,\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{4\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{4\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\,\left\{\frac{3}{4}\right\},\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{20\,d}\,9\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\Bigg(\Bigg(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\Bigg)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4\,a^3\,(9\,A+5\,B-5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,(3\,A+5\,B+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,d}-$$

$$\frac{4\,a^3\,(21\,A+20\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a^2\,(33\,A+35\,B+15\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(6\,A+5\,B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\Bigg(-\frac{(-36\,A-25\,B+5\,C+5\,B\,\text{Cos}[2\,c]+15\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\frac{C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{12\,d}+\frac{C\,\text{Cos}[c]\,\text{Sin}[d\,x]}{12\,d}+$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,\text{Sin}[d\,x]}{20\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(3\,A\,\text{Sin}[c]+15\,A\,\text{Sin}[d\,x]+5\,B\,\text{Sin}[d\,x])}{60\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(15\,A\,\text{Sin}[c]+5\,B\,\text{Sin}[c]+54\,A\,\text{Sin}[d\,x]+45\,B\,\text{Sin}[d\,x]+15\,C\,\text{Sin}[d\,x])}{60\,d}\Bigg)-$$

$$\frac{1}{2\,d\,\sqrt{1+\text{Cot}[c]^2}}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{6\,d\sqrt{1+\text{Cot}[c]^2}}\,5\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{6\,d\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{20\,d}\,9\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{4\,d}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)-\frac{1}{4\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{9/2}},\,x,\,7,\,0\right\}$$

$$-\frac{4\,a^3\,(7\,A+9\,B+5\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,d}+\frac{4\,a^3\,(13\,A+21\,B+35\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+$$

$$\frac{4\,a^3\,(106\,A+147\,B+140\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(7\,A+9\,B+5\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{15\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,a\,(6\,A+7\,B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{35\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(-\frac{(-28\,A-36\,B-25\,C+5\,C\,\text{Cos}[2\,c])\,\text{Csc}[2\,c]}{20\,d}+\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{28\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(5\,A\,\text{Sin}[c]+21\,A\,\text{Sin}[d\,x]+7\,B\,\text{Sin}[d\,x])}{140\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(63\,A\,\text{Sin}[c]+21\,B\,\text{Sin}[c]+130\,A\,\text{Sin}[d\,x]+105\,B\,\text{Sin}[d\,x]+35\,C\,\text{Sin}[d\,x])}{420\,d}+$$

$$\left.\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(130\,A\,\text{Sin}[c]+105\,B\,\text{Sin}[c]+35\,C\,\text{Sin}[c]+294\,A\,\text{Sin}[d\,x]+378\,B\,\text{Sin}[d\,x]+315\,C\,\text{Sin}[d\,x])}{420\,d}\right)-$$

$$\frac{1}{42\,d\,\sqrt{1+\text{Cot}[c]^2}}\,13\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{2\,d\sqrt{1+\text{Cot}[c]^2}}\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{6\,d\sqrt{1+\text{Cot}[c]^2}}\,5\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6 \text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;+\frac{1}{20\,d}\,7\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\text{Tan}[c]^2}\right)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20\,d}\,9\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{4\,d}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\right.$$

$$\left.\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\,x,\,8,\,0\right\}$$

$$-\frac{4\,a^3\,(17\,A+21\,B+27\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+$$

$$\frac{4\,a^3\,(11\,A+13\,B+21\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,d}+\frac{4\,a^3\,(32\,A+41\,B+42\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{4\,a^3\,(17\,A+21\,B+27\,C)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(73\,A+99\,B+63\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{315\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,a\,(2\,A+3\,B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\frac{(17\,A+21\,B+27\,C)\,\text{Csc}[2\,c]}{15\,d}+\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,\text{Sin}[d\,x]}{36\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(7\,A\,\text{Sin}[c]+27\,A\,\text{Sin}[d\,x]+9\,B\,\text{Sin}[d\,x])}{252\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(135\,A\,\text{Sin}[c]+45\,B\,\text{Sin}[c]+238\,A\,\text{Sin}[d\,x]+189\,B\,\text{Sin}[d\,x]+63\,C\,\text{Sin}[d\,x])}{1260\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(238\,A\,\text{Sin}[c]+189\,B\,\text{Sin}[c]+63\,C\,\text{Sin}[c]+330\,A\,\text{Sin}[d\,x]+390\,B\,\text{Sin}[d\,x]+315\,C\,\text{Sin}[d\,x])}{1260\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(110\,A\,\text{Sin}[c]+130\,B\,\text{Sin}[c]+105\,C\,\text{Sin}[c]+238\,A\,\text{Sin}[d\,x]+294\,B\,\text{Sin}[d\,x]+378\,C\,\text{Sin}[d\,x])}{420\,d}\Bigg)-$$

$$\frac{1}{42\,d\sqrt{1+\text{Cot}[c]^2}}\,11\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{42\,d\sqrt{1+\text{Cot}[c]^2}}\,13\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;-$$

$$\frac{1}{2\,d\sqrt{1+\text{Cot}[c]^2}}\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{60\,d}\,17\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{20\,d}\,7\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\,\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)+\frac{1}{20\,d}\,9\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\,-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^3\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{13/2}},\,x,\,9,\,0\right\}$$

$$-\frac{4\,a^3\,(15\,A+17\,B+21\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+\frac{4\,a^3\,(105\,A+121\,B+143\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+$$

$$\frac{4\,a^3\,(210\,A+253\,B+264\,C)\,\text{Sin}[c+d\,x]}{1155\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{4\,a^3\,(105\,A+121\,B+143\,C)\,\text{Sin}[c+d\,x]}{231\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{4\,a^3\,(15\,A+17\,B+21\,C)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(105\,A+143\,B+99\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{693\,d\,\text{Cos}[c+d\,x]^{7/2}}+$$

$$\frac{2\,a\,(6\,A+11\,B)\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{99\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{11\,d\,\text{Cos}[c+d\,x]^{11/2}}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\frac{(15\,A+17\,B+21\,C)\,\text{Csc}[2\,c]}{15\,d}+\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^6\,\text{Sin}[d\,x]}{44\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^5\,(9\,A\,\text{Sin}[c]+33\,A\,\text{Sin}[d\,x]+11\,B\,\text{Sin}[d\,x])}{396\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,(231\,A\,\text{Sin}[c]+77\,B\,\text{Sin}[c]+378\,A\,\text{Sin}[d\,x]+297\,B\,\text{Sin}[d\,x]+99\,C\,\text{Sin}[d\,x])}{2772\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(525\,A\,\text{Sin}[c]+605\,B\,\text{Sin}[c]+715\,C\,\text{Sin}[c]+1155\,A\,\text{Sin}[d\,x]+1309\,B\,\text{Sin}[d\,x]+1617\,C\,\text{Sin}[d\,x])}{2310\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(1890\,A\,\text{Sin}[c]+1485\,B\,\text{Sin}[c]+495\,C\,\text{Sin}[c]+2310\,A\,\text{Sin}[d\,x]+2618\,B\,\text{Sin}[d\,x]+2079\,C\,\text{Sin}[d\,x])}{13\,860\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(2310\,A\,\text{Sin}[c]+2618\,B\,\text{Sin}[c]+2079\,C\,\text{Sin}[c]+3150\,A\,\text{Sin}[d\,x]+3630\,B\,\text{Sin}[d\,x]+4290\,C\,\text{Sin}[d\,x])}{13\,860\,d}\Bigg)-$$

$$\frac{1}{22\,d\sqrt{1+\text{Cot}[c]^2}}\,5\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{42\,d\sqrt{1+\text{Cot}[c]^2}}\,11\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}-$$

$$\frac{1}{42\,d\sqrt{1+\text{Cot}[c]^2}}\,13\,C\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}+\frac{1}{4\,d}\,A\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{60\,d}\,17\,B\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Csc}[c]$$

$$\operatorname{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\operatorname{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]^2\right]\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{1+\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\operatorname{Tan}[c]^2}\right)-\frac{\frac{\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]}{\sqrt{1+\operatorname{Tan}[c]^2}}+\frac{2\operatorname{Cos}[c]^2\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}{\operatorname{Cos}[c]^2+\operatorname{Sin}[c]^2}}{\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}}\right)+\frac{1}{20\,d}7\,C\,(a+a\operatorname{Cos}[c+d\,x])^3\operatorname{Csc}[c]$$

$$\operatorname{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\left(\left(\operatorname{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]^2\right]\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{1+\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\operatorname{Tan}[c]^2}\right)-\frac{\frac{\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]}{\sqrt{1+\operatorname{Tan}[c]^2}}+\frac{2\operatorname{Cos}[c]^2\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}{\operatorname{Cos}[c]^2+\operatorname{Sin}[c]^2}}{\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\operatorname{Cos}[c+d\,x]^{5/2}\left(A+B\operatorname{Cos}[c+d\,x]+C\operatorname{Cos}[c+d\,x]^2\right)}{a+a\operatorname{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$-\frac{3\,(5\,A-7\,B+7\,C)\operatorname{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,a\,d}+\frac{5\,(7\,A-7\,B+9\,C)\operatorname{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,a\,d}+$$

$$\frac{5\,(7\,A-7\,B+9\,C)\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{Sin}[c+d\,x]}{21\,a\,d}-\frac{(5\,A-7\,B+7\,C)\operatorname{Cos}[c+d\,x]^{3/2}\operatorname{Sin}[c+d\,x]}{5\,a\,d}+$$

$$\frac{(7\,A-7\,B+9\,C)\operatorname{Cos}[c+d\,x]^{5/2}\operatorname{Sin}[c+d\,x]}{7\,a\,d}-\frac{(A-B+C)\operatorname{Cos}[c+d\,x]^{7/2}\operatorname{Sin}[c+d\,x]}{d\,(a+a\operatorname{Cos}[c+d\,x])}$$

$$-\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{10\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$21\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{10\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$21\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{2\,(5\,A-5\,B+5\,C+10\,A\,\mathrm{Cos}[c]-16\,B\,\mathrm{Cos}[c]+16\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{(28\,A-28\,B+51\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{21\,d}+\right.$$

$$\frac{2\,(B-C)\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}+\frac{C\,\mathrm{Cos}[3\,d\,x]\,\mathrm{Sin}[3\,c]}{7\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+$$

$$\left.\frac{(28\,A-28\,B+51\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{21\,d}+\frac{2\,(B-C)\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+\frac{C\,\mathrm{Cos}[3\,c]\,\mathrm{Sin}[3\,d\,x]}{7\,d}\right)-$$

$$\left(10\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(10\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(30\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(7\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{a+a\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{3\,(5\,A-5\,B+7\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,a\,d}-\frac{(3\,A-5\,B+5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}-$$

$$\frac{(3\,A-5\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{(5\,A-5\,B+7\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{3\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{10\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$21\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{2\,(5\,A-5\,B+5\,C+10\,A\,\mathrm{Cos}[c]-10\,B\,\mathrm{Cos}[c]+16\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{4\,(B-C)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\right.$$

$$\left.\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{4\,(B-C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}\right)+$$

$$\left(2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(10\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(10\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{a+a\,\mathrm{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$-\frac{(A-3B+3C)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}+\frac{(3A-3B+5C)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3\,a\,d}+\frac{(3A-3B+5C)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,a\,d}-\frac{(A-B+C)\,\text{Cos}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{d\,(a+a\,\text{Cos}[c+dx])}$$

$$-\frac{i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$+\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$3\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$3\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{2\,(-A+B-C+2\,B\,\mathrm{Cos}[c]-2\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}+\frac{4\,C\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{4\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}\right)-$$

$$\left(2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(10\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{1+\mathrm{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])},\ x,\ 4,\ 0\right\}$$

$$\frac{(A-B+3\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a\,d}+\frac{(A+B-C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a\,d}-\frac{(A-B+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}-$$

$$\frac{i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$+\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}3\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{2\,(A-B+C+2\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}\right)}{a+a\,\mathrm{Cos}[c+d\,x]}-$$

$$\left(2\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(2\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\sqrt{1+\mathrm{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])},\ x,\ 5,\ 0\right\}$$

$$-\frac{(3A-B+C)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}-\frac{(A-B-C)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}+$$

$$\frac{(3A-B+C)\,\text{Sin}[c+dx]}{a\,d\sqrt{\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Sin}[c+dx]}{d\sqrt{\text{Cos}[c+dx]}\,(a+a\,\text{Cos}[c+dx])}$$

$$-\frac{1}{2\,(a+a\,\text{Cos}[c+dx])}3\,i\,A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{i\,B\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\text{Cos}[c+dx])}$$

$$-$$

$$\frac{i\,C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\text{Cos}[c+dx])}$$

$$+$$

$$\frac{\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\sqrt{\text{Cos}[c+dx]}\left(\frac{2\,(3A-B+C)}{d\,(-\text{Sin}[c]+\text{Sin}[2c])}-\frac{2\,\text{Sec}\left[\frac{3c}{2}\right]\left(-3A\,\text{Sin}\left[\frac{3dx}{2}\right]+B\,\text{Sin}\left[\frac{3dx}{2}\right]-C\,\text{Sin}\left[\frac{3dx}{2}\right]+2A\,\text{Sin}\left[c-\frac{dx}{2}\right]+A\,\text{Sin}\left[2c+\frac{dx}{2}\right]-B\,\text{Sin}\left[2c+\frac{dx}{2}\right]+C\,\text{Sin}\left[2c+\frac{dx}{2}\right]\right)}{d\left(\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]+\text{Cos}\left[\frac{3c}{2}+\frac{3dx}{2}\right]\right)}\right)}{a+a\,\text{Cos}[c+dx]}$$

$$+\left(2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(2\,B\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{\text{Cos}[c+dx]^{5/2}\,(a+a\,\text{Cos}[c+dx])},x,6,0\right\}$$

$$\frac{(3A-3B+C)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a\,d}+\frac{(5A-3B+3C)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3\,a\,d}+$$

$$\frac{(5A-3B+3C)\,\text{Sin}[c+dx]}{3\,a\,d\,\text{Cos}[c+dx]^{3/2}}-\frac{(3A-3B+C)\,\text{Sin}[c+dx]}{a\,d\,\sqrt{\text{Cos}[c+dx]}}-\frac{(A-B+C)\,\text{Sin}[c+dx]}{d\,\text{Cos}[c+dx]^{3/2}\,(a+a\,\text{Cos}[c+dx])}$$

$$\frac{3\,i\,A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\text{Cos}[c+dx])}$$

$$-\frac{1}{2\,(a+a\,\text{Cos}[c+dx])}3\,i\,B\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{i\,C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{2\,(a+a\,\text{Cos}[c+dx])}$$

$$+\frac{1}{a+a\,\text{Cos}[c+dx]}\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\sqrt{\text{Cos}[c+dx]}\left(-\frac{(2A-2B+A\,\text{Cos}[c]-B\,\text{Cos}[c]+C\,\text{Cos}[c])\,\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{d}-\right.$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\left(A\,\text{Sin}\left[\frac{dx}{2}\right]-B\,\text{Sin}\left[\frac{dx}{2}\right]+C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{d}+\frac{4\,A\,\text{Sec}[c]\,\text{Sec}[c+dx]^2\,\text{Sin}[dx]}{3\,d}+$$

$$\left.\frac{4\,\text{Sec}[c]\,\text{Sec}[c+dx]\,(A\,\text{Sin}[c]-3\,A\,\text{Sin}[dx]+3\,B\,\text{Sin}[dx])}{3\,d}\right)-$$

$$\left(10\,A\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(2\,B\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[dx-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[dx-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+dx])\sqrt{1+\text{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{7/2}\,(a+a\,\mathrm{Cos}[c+d\,x])},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,(7\,A-5\,B+5\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a\,d}-\frac{(5\,A-5\,B+3\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a\,d}+\frac{(7\,A-5\,B+5\,C)\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}-$$

$$\frac{(5\,A-5\,B+3\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{3\,(7\,A-5\,B+5\,C)\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(A-B+C)\,\mathrm{Sin}[c+d\,x]}{d\,\mathrm{Cos}[c+d\,x]^{5/2}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{10\,(a+a\,\mathrm{Cos}[c+d\,x])}21\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$3\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{2\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$3\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{1}{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\sqrt{\mathrm{Cos}[c+d\,x]}\left(\frac{(16\,A-10\,B+10\,C+5\,A\,\mathrm{Cos}[c]-5\,B\,\mathrm{Cos}[c]+5\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}[c]}{5\,d}+\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{4\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Sin}[d\,x]}{5\,d}+$$

$$\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,(3\,A\,\mathrm{Sin}[c]-5\,A\,\mathrm{Sin}[d\,x]+5\,B\,\mathrm{Sin}[d\,x])}{15\,d}-$$

$$\left.\frac{4\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,(5\,A\,\mathrm{Sin}[c]-5\,B\,\mathrm{Sin}[c]-24\,A\,\mathrm{Sin}[d\,x]+15\,B\,\mathrm{Sin}[d\,x]-15\,C\,\mathrm{Sin}[d\,x])}{15\,d}\right)+$$

$$\left(10\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$
$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)-$$
$$\left(10\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$
$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)+$$
$$\left(2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$
$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$
$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])\,\sqrt{1+\text{Cot}[c]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$
$$\frac{(20\,A-35\,B+56\,C)\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]}{5\,a^2\,d}-\frac{5\,(A-2\,B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]}{3\,a^2\,d}-$$
$$\frac{5\,(A-2\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{(20\,A-35\,B+56\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a^2\,d}-$$
$$\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-2\,B+3\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{4\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$-\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}7\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$56\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\left(20\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$
$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$
$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(40\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$
$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$
$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(20\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$
$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$
$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(10\,A-15\,B+20\,C+10\,A\,\mathrm{Cos}[c]-20\,B\,\mathrm{Cos}[c]+36\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{8\,(B-2\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\frac{4\,C\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(2\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-3\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{8\,(B-2\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,C\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$-\frac{(A-4\,B+7\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^2\,d}+\frac{(2\,A-5\,B+10\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}+\frac{(2\,A-5\,B+10\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(A-B+C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(A-4\,B+7\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$4\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$7\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-$$

$$\left(8\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(20\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(40\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{4\,(-A+2\,B-3\,C+2\,B\,\mathrm{Cos}[c]-4\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{d}+\right.$$

$$\frac{8\,C\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+$$

$$\left.\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-2\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{8\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$-\frac{(B-4\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^2\,d}+\frac{(A+2\,B-5\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}-$$

$$\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}+\frac{(A+2\,B-5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$-\left(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(8\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(20\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(-B+2\,C+2\,C\,\text{Cos}[c])\,\text{Csc}[c]}{d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\left(B\,\text{Sin}\left[\frac{d\,x}{2}\right]-2\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\right.$$

$$\left.\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\right.$$

$$\left.\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\,\sqrt{1+\mathrm{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(\left(\mathrm{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]^2\right]\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{1+\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]}\,\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}\right.$$

$$\left.\left.\sqrt{1+\mathrm{Tan}[c]^2}\right)-\frac{\frac{\mathrm{Sin}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\mathrm{Tan}[c]}{\sqrt{1+\mathrm{Tan}[c]^2}}+\frac{2\,\mathrm{Cos}[c]^2\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}{\mathrm{Cos}[c]^2+\mathrm{Sin}[c]^2}}{\sqrt{\mathrm{Cos}[c]\,\mathrm{Cos}[d\,x+\mathrm{ArcTan}[\mathrm{Tan}[c]]]\,\sqrt{1+\mathrm{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2},\,x,\,5,\,0\right\}$$

$$\frac{(A-C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{(2\,A+B+2\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}-$$

$$\frac{(A-B+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(A-C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\left(8\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(8\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}\left(-\frac{4\,(A-C)\,\text{Csc}[c]}{d}-\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}-\right.$$

$$\left.\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)-$$

$$\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}2\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\;\sqrt{1+\text{Tan}[c]^2}\Bigg)-$$

$$\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}\,2\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\text{Csc}[c]\Bigg(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/$$

$$\Bigg(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\;\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}$$

$$\sqrt{1+\text{Tan}[c]^2}\Bigg)-\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{(4\,A-B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}-\frac{(5\,A-2\,B-C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a^2\,d}+$$

$$\frac{(4\,A-B)\,\text{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(5\,A-2\,B-C)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\Bigg(20\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\;\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(8\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(4\,A-B)}{d\,(-\text{Sin}[c]+\text{Sin}[2\,c])}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$

$$\frac{4\,\text{Sec}\left[\frac{3\,c}{2}\right]\left(-4\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+B\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+2\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+2\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)}{d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}+$$

$$\left.\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)+\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}8\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]$$

$$\left(\left(\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]^2\right]\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]\right)\Big/\right.$$

$$\left(\sqrt{1-\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\,\sqrt{1+\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]}\right.$$

$$\left.\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}\,\sqrt{1+\text{Tan}[c]^2}\right)-$$

$$\left.\frac{\frac{\text{Sin}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\text{Tan}[c]}{\sqrt{1+\text{Tan}[c]^2}}+\frac{2\,\text{Cos}[c]^2\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}{\text{Cos}[c]^2+\text{Sin}[c]^2}}{\sqrt{\text{Cos}[c]\,\text{Cos}[d\,x+\text{ArcTan}[\text{Tan}[c]]]\,\sqrt{1+\text{Tan}[c]^2}}}\right)-\frac{1}{d\,(a+a\,\text{Cos}[c+d\,x])^2}2\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\operatorname{Csc}[c]\left(\left(\operatorname{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]^2\right]\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]\right)\Big/\left(\sqrt{1-\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{1+\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]}\,\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}\,\sqrt{1+\operatorname{Tan}[c]^2}\right)-\frac{\frac{\operatorname{Sin}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\operatorname{Tan}[c]}{\sqrt{1+\operatorname{Tan}[c]^2}}+\frac{2\operatorname{Cos}[c]^2\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}{\operatorname{Cos}[c]^2+\operatorname{Sin}[c]^2}}{\sqrt{\operatorname{Cos}[c]\operatorname{Cos}[d\,x+\operatorname{ArcTan}[\operatorname{Tan}[c]]]\sqrt{1+\operatorname{Tan}[c]^2}}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\operatorname{Cos}[c+d\,x]+C\operatorname{Cos}[c+d\,x]^2}{\operatorname{Cos}[c+d\,x]^{5/2}\,(a+a\operatorname{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$\frac{(7A-4B+C)\operatorname{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]}{a^2\,d}+\frac{(10A-5B+2C)\operatorname{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]}{3\,a^2\,d}+\frac{(10A-5B+2C)\operatorname{Sin}[c+d\,x]}{3\,a^2\,d\operatorname{Cos}[c+d\,x]^{3/2}}-\frac{(7A-4B+C)\operatorname{Sin}[c+d\,x]}{a^2\,d\sqrt{\operatorname{Cos}[c+d\,x]}}-\frac{(A-B+C)\operatorname{Sin}[c+d\,x]}{3\,d\operatorname{Cos}[c+d\,x]^{3/2}\,(a+a\operatorname{Cos}[c+d\,x])^2}-\frac{(7A-4B+C)\operatorname{Sin}[c+d\,x]}{3\,a\,d\operatorname{Cos}[c+d\,x]^{3/2}\,(a+a\operatorname{Cos}[c+d\,x])}$$

$$\frac{7\,i\,A\operatorname{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\operatorname{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{(a+a\operatorname{Cos}[c+d\,x])^2}$$

$$-\frac{1}{(a+a\operatorname{Cos}[c+d\,x])^2}4\,i\,B\operatorname{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\operatorname{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{i\,C\operatorname{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\operatorname{Csc}[c]\left(-\frac{2\,i\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\operatorname{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{(a+a\operatorname{Cos}[c+d\,x])^2}$$

$$-\left(40\,A\operatorname{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\operatorname{Csc}[c]\operatorname{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\operatorname{Sin}[d\,x-\operatorname{ArcTan}[\operatorname{Cot}[c]]]^2\right]\right.$$

$$\operatorname{Sec}[d\,x-\operatorname{ArcTan}[\operatorname{Cot}[c]]]\sqrt{1-\operatorname{Sin}[d\,x-\operatorname{ArcTan}[\operatorname{Cot}[c]]]}\,\sqrt{-\sqrt{1+\operatorname{Cot}[c]^2}\operatorname{Sin}[c]\operatorname{Sin}[d\,x-\operatorname{ArcTan}[\operatorname{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\Bigg(20\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(8\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Bigg/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^2\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^2}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Cos}[c+d\,x]}$$

$$\Bigg(\frac{2\,(4\,A-27\,A\,\text{Cos}[c]+12\,B\,\text{Cos}[c]-3\,C\,\text{Cos}[c]+2\,A\,\text{Cos}[2\,c])\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]}{3\,d\left(-2\,\text{Sin}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{3\,c}{2}\right]\right)}+\frac{8\,A\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{8\,A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,\text{Sin}[d\,x]}{3\,d}+$$

$$\frac{1}{3\,d\left(\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}4\,\text{Sec}\left[\frac{3\,c}{2}\right]\Bigg(-2\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]+2\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-2\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]-21\,A\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+$$

$$12\,B\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]-3\,C\,\text{Sin}\left[\frac{3\,d\,x}{2}\right]+9\,A\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-5\,B\,\text{Sin}\left[c-\frac{d\,x}{2}\right]-C\,\text{Sin}\left[c-\frac{d\,x}{2}\right]+2\,A\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$2\,B\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+2\,C\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+10\,A\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]-5\,B\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]+2\,C\,\text{Sin}\left[2\,c+\frac{d\,x}{2}\right]\Bigg)+$$

$$\frac{1}{3\,d}2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}[c]\,\text{Sec}[c+d\,x]\Bigg(A\,\text{Sin}\left[\frac{c}{2}\right]+B\,\text{Sin}\left[\frac{c}{2}\right]-C\,\text{Sin}\left[\frac{c}{2}\right]+3\,A\,\text{Sin}\left[\frac{3\,c}{2}\right]-B\,\text{Sin}\left[\frac{3\,c}{2}\right]+$$

$$C\,\text{Sin}\left[\frac{3\,c}{2}\right]+2\,A\,\text{Sin}\left[\frac{c}{2}-d\,x\right]-2\,A\,\text{Sin}\left[\frac{c}{2}+d\,x\right]\Bigg)-\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{3\,d}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$\frac{7\,(7\,A-17\,B+33\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}-$$

$$\frac{(13\,A-33\,B+63\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-\frac{(13\,A-33\,B+63\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{6\,a^3\,d}+$$

$$\frac{7\,(7\,A-17\,B+33\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{30\,a^3\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-$$

$$\frac{(2\,A-7\,B+12\,C)\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(13\,A-33\,B+63\,C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}49\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$119\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$231\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\left(52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(44\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+$$

$$\left(84\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(29\,A-59\,B+99\,C+20\,A\,\mathrm{Cos}[c]-60\,B\,\mathrm{Cos}[c]+132\,C\,\mathrm{Cos}[c])\,\mathrm{Csc}[c]}{5\,d}+\frac{16\,(B-3\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Sin}[c]}{3\,d}+\right.$$

$$\frac{8\,C\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(14\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-19\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+24\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(29\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-59\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+99\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,(B-3\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\left.\frac{8\,C\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{5\,d}+\frac{4\,(14\,A-19\,B+24\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{(9\,A-49\,B+119\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(3\,A-13\,B+33\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+$$

$$\frac{(3\,A-13\,B+33\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^3\,d}-\frac{(A-B+C)\,\mathrm{Cos}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{(B-2\,C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(9\,A-49\,B+119\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}9\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$49\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\Bigg)-\frac{1}{5\,(a+a\,\text{Cos}[c+d\,x])^3}$$

$$119\,i\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\Bigg(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-$$

$$\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\Bigg)-$$

$$\Bigg(4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\Bigg(52\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(44\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\,\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/$$

$$\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\,\sqrt{\text{Cos}[c+d\,x]}\,\Bigg(-\frac{4\,(-9\,A+29\,B-59\,C+20\,B\,\text{Cos}[c]-60\,C\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+$$

$$\frac{16\,C\,\text{Cos}[d\,x]\,\text{Sin}[c]}{3\,d}+\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\,\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-14\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+19\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-29\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+59\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\frac{16\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{3\,d}-$$

$$\left.\frac{4\,(9\,A-14\,B+19\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$-\frac{(A+9\,B-49\,C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(A+3\,B-13\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}-$$

$$\frac{(A-B+C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{(2\,A+3\,B-8\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{(A+3\,B-13\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$-\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$9\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$49\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-$$

$$\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)-$$

$$\Bigg(4\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\Bigg(52\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]$$

$$\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\Bigg)\Big/$$

$$\left(3\,d\,(a+a\,\text{Cos}[c+d\,x])^3\sqrt{1+\text{Cot}[c]^2}\right)+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}$$

$$\Bigg(-\frac{4\,(-A-9\,B+29\,C+20\,C\,\text{Cos}[c])\,\text{Csc}[c]}{5\,d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+9\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]-29\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$

$$\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(4\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-9\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+14\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,(4\,A-9\,B+14\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^3},\,x,\,6,\,0\right\}$$

$$\frac{(A-B-9\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{10\,a^3\,d}+\frac{(A+B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{6\,a^3\,d}-$$

$$\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{(4\,A+B-6\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(A-B-9\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$-\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}9\,i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-$$

$$\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(-\frac{4\,(A-B-9\,C)\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-9\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+4\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-9\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$

$$\left.\frac{4\,(A+4\,B-9\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{(9\,A+B-C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(3\,A+B+C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}-\frac{(A-B+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}-\frac{(6\,A-B-4\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(9\,A+B-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{9\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$+\frac{i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$-\frac{i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\sqrt{e^{-i\,(c+d\,x)}\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$-\left(4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$
$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$
$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$
$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$
$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$
$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$
$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}$$
$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\left(-\frac{4\,(9\,A+B-C)\,\mathrm{Csc}[c]}{5\,d}-\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(6\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-4\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-\right.$$
$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(9\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$
$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$
$$\left.\frac{4\,(6\,A-B-4\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+a\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{(49\,A-9\,B-C)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}-\frac{(13\,A-3\,B-C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+\frac{(49\,A-9\,B-C)\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(A-B+C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(8\,A-3\,B-2\,C)\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-3\,B-C)\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}49\,i\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$9\,i\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+$$

$$\frac{i\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)}{5\,(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$+\left(52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\,\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\,\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\left(\frac{4\,(49\,A-9\,B-C)}{5\,d\,(-\mathrm{Sin}[c]+\mathrm{Sin}[2\,c])}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\left(4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-49\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+9\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+\right.\right.$$

$$\left.\left.C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+20\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+29\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-9\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)\right)\Big/$$

$$\left.\left(5\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)\right)+\frac{4\,(11\,A-6\,B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+a\,\text{Cos}[c+d\,x])^3},\ x,\ 8,\ 0\right\}$$

$$\frac{(119\,A-49\,B+9\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{10\,a^3\,d}+\frac{(33\,A-13\,B+3\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{6\,a^3\,d}+$$

$$\frac{(33\,A-13\,B+3\,C)\,\text{Sin}[c+d\,x]}{6\,a^3\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{(119\,A-49\,B+9\,C)\,\text{Sin}[c+d\,x]}{10\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^3}-$$

$$\frac{(2\,A-B)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(119\,A-49\,B+9\,C)\,\text{Sin}[c+d\,x]}{30\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{5\,(a+a\,\text{Cos}[c+d\,x])^3}119\,i\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-\frac{1}{5\,(a+a\,\text{Cos}[c+d\,x])^3}$$

$$49\,i\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)+\frac{1}{5\,(a+a\,\text{Cos}[c+d\,x])^3}$$

$$9\,i\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\left(-\frac{2\,i\,\sqrt{2}\,e^{-i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}-\right.$$

$$\left.\frac{2\,i\,\sqrt{2}\,e^{i\,d\,x}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -e^{2\,i\,(c+d\,x)}\right]}{3\,d\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}}\right)-$$

$$\left(44\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\ \frac{1}{2}\right\},\ \left\{\frac{5}{4}\right\},\ \text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]^2\right]\right.$$

$$\text{Sec}[d\,x-\text{ArcTan}[\text{Cot}[c]]]\,\sqrt{1-\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\,\sqrt{-\sqrt{1+\text{Cot}[c]^2}\,\text{Sin}[c]\,\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}$$

$$\left.\sqrt{1+\text{Sin}[d\,x-\text{ArcTan}[\text{Cot}[c]]]}\right)\Big/\left(d\,(a+a\,\text{Cos}[c+d\,x])^3\,\sqrt{1+\text{Cot}[c]^2}\right)+$$

$$\left(52\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\right.$$

$$\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}$$

$$\left.\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/\left(3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)-$$

$$\left(4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]\,\mathrm{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]^2\right]\mathrm{Sec}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]\right.$$

$$\left.\sqrt{1-\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{-\sqrt{1+\mathrm{Cot}[c]^2}\,\mathrm{Sin}[c]\,\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\sqrt{1+\mathrm{Sin}[d\,x-\mathrm{ArcTan}[\mathrm{Cot}[c]]]}\right)\Big/$$

$$\left(d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{1+\mathrm{Cot}[c]^2}\right)+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\left(\frac{2\,(40\,A-417\,A\,\mathrm{Cos}[c]+147\,B\,\mathrm{Cos}[c]-27\,C\,\mathrm{Cos}[c]+20\,A\,\mathrm{Cos}[2\,c])\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]}{15\,d\left(-2\,\mathrm{Sin}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{3\,c}{2}\right]\right)}+\right.$$

$$\frac{16\,A\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{3\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(16\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-11\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{16\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\frac{1}{15\,d\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Cos}\left[\frac{3\,c}{2}+\frac{3\,d\,x}{2}\right]\right)}4\,\mathrm{Sec}\left[\frac{3\,c}{2}\right]\left(-64\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+44\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-24\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-357\,A\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+\right.$$

$$147\,B\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]-27\,C\,\mathrm{Sin}\left[\frac{3\,d\,x}{2}\right]+128\,A\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-38\,B\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]-12\,C\,\mathrm{Sin}\left[c-\frac{d\,x}{2}\right]+64\,A\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]-$$

$$\left.44\,B\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+24\,C\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]+165\,A\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]-65\,B\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]+15\,C\,\mathrm{Sin}\left[2\,c+\frac{d\,x}{2}\right]\right)+\frac{1}{15\,d}$$

$$4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\left(-6\,A\,\mathrm{Sin}\left[\frac{c}{2}\right]+11\,B\,\mathrm{Sin}\left[\frac{c}{2}\right]-6\,C\,\mathrm{Sin}\left[\frac{c}{2}\right]+26\,A\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]-11\,B\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]+6\,C\,\mathrm{Sin}\left[\frac{3\,c}{2}\right]+\right.$$

$$\left.\left.10\,A\,\mathrm{Sin}\left[\frac{c}{2}-d\,x\right]-10\,A\,\mathrm{Sin}\left[\frac{c}{2}+d\,x\right]\right)-\frac{4\,(16\,A-11\,B+6\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\,x,\,3,\,0\right\}$$

$$\frac{\sqrt{a}\,(8\,A+4\,B+3\,C)\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]}{4\,d}+$$

$$\frac{a\,(4\,B+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,d}$$

$$\frac{1}{16\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\frac{1}{\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}\right.$$
$$i\sqrt{2}\,(8\,A+4\,B+3\,C)\,e^{\frac{i\,d\,x}{2}}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left.\sqrt{e^{-i\,d\,x}\left(\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]\right)}+4\sqrt{\text{Cos}[c+d\,x]}\,(4\,B+3\,C+2\,C\,\text{Cos}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{\sqrt{a}\,(2\,B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a\,(2\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$
$$-\frac{1}{4\sqrt{2}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$
$$\left(i\,(2\,B+C)\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+\right.$$
$$2\,i\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+$$
$$i\,C\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]+2\,(2\,B+C)$$
$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]\text{Cos}[c+d\,x]\left(-i\,\text{Cos}\left[\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{d\,x}{2}\right]\right)+$$
$$2\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$
$$C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$
$$8\sqrt{2}\,A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-2\sqrt{2}\,C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-$$
$$2\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]-$$
$$\left.C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\ x,\ 3,\ 0\right\}$$

$$\frac{2\sqrt{a}\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}+\frac{2\,a\,(A+3\,B)\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{1}{6\sqrt{2}\, d\, \text{Cos}[c+d x]^{3/2} \sqrt{\text{Cos}[c+d x]\,(\text{Cos}[d x]+i\,\text{Sin}[d x])}} \sqrt{a\,(1+\text{Cos}[c+d x])}$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right] \Bigg(\frac{3}{2} i\, C\, e^{-\frac{3}{2} i d x}\, \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]$$

$$\text{Cos}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 -$$

$$\frac{3}{2} i\, C\, e^{-\frac{3}{2} i d x}\, \text{Cos}\left[\frac{c}{2}\right]^2 \text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\, e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]$$

$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 +$$

$$\frac{3}{2} i\, C\, e^{-\frac{3}{2} i d x}\, \text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]$$

$$\text{Sin}\left[\frac{c}{2}\right]^2 \left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 -$$

$$\frac{3}{2} i\, C\, e^{-\frac{3}{2} i d x}\, \text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\, e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\text{Sin}\left[\frac{c}{2}\right]^2$$

$$\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)^2 + 4\,A\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\;\text{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$8\,A\,\text{Cos}[c+d x]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\;\text{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$12\,B\,\text{Cos}[c+d x]\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\;\text{Sin}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d x]^{3/2}\,(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right),\ x,\ 6,\ 0\right\}$$

$$\frac{a^{3/2}\,(176\,A+150\,B+133\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+a\,\text{Cos}[c+d x]}}\right]}{128\,d} + \frac{a^2\,(176\,A+150\,B+133\,C)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{128\,d\sqrt{a+a\,\text{Cos}[c+d x]}} +$$

$$\frac{a^2\,(176\,A+150\,B+133\,C)\,\text{Cos}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{192\,d\sqrt{a+a\,\text{Cos}[c+d x]}} + \frac{a^2\,(80\,A+90\,B+67\,C)\,\text{Cos}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{240\,d\sqrt{a+a\,\text{Cos}[c+d x]}} +$$

$$\frac{a\,(10\,B+3\,C)\,\text{Cos}[c+d x]^{5/2}\sqrt{a+a\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{40\,d} + \frac{C\,\text{Cos}[c+d x]^{5/2}\,(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{5\,d}$$

$$\frac{1}{15360\,d}$$

$$\sqrt{a\,(1+\text{Cos}[c+d x])}\Bigg(\frac{1}{\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}}\,15\,i\sqrt{2}\;a\,(176\,A+150\,B+133\,C)\,e^{\frac{i d x}{2}}\,(1+\text{Cos}[c+d x])$$

$$\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right] -\right.$$

$$\left.\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\, e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\right)$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)} +$$

$$8\,a\sqrt{\text{Cos}[c+d x]}\,(2960\,A+2850\,B+2671\,C+2\,(880\,A+930\,B+1007\,C)\,\text{Cos}[c+d x]+4\,(80\,A+150\,B+181\,C)\,\text{Cos}[2\,(c+d x)]+$$

$$120\,B\,\text{Cos}[3\,(c+d x)]+228\,C\,\text{Cos}[3\,(c+d x)]+48\,C\,\text{Cos}[4\,(c+d x)])\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d x]}\,(a+a\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right),\ x,\ 5,\ 0\right\}$$

$$\frac{a^{3/2}\,(112\,A+88\,B+75\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{64\,d}+$$

$$\frac{a^2\,(112\,A+88\,B+75\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{a^2\,(48\,A+56\,B+39\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{a\,(8\,B+3\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d}+\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d}$$

$$\frac{1}{1536\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\frac{1}{\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}\,3\,i\,\sqrt{2}\,a\,(112\,A+88\,B+75\,C)\right.$$
$$e^{\frac{i\,d\,x}{2}}\,(1+\text{Cos}[c+d\,x])\,\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.$$
$$\left.\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\sqrt{e^{-i\,d\,x}\,\left(\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]\right)}+8\,a\,\sqrt{\text{Cos}[c+d\,x]}$$
$$(336\,A+296\,B+285\,C+2\,(48\,A+88\,B+93\,C)\,\text{Cos}[c+d\,x]+4\,(8\,B+15\,C)\,\text{Cos}[2\,(c+d\,x)]+12\,C\,\text{Cos}[3\,(c+d\,x)])$$
$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,4,\,0\right\}$$

$$\frac{a^{3/2}\,(8\,A+12\,B+7\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{4\,d}-\frac{a^2\,(8\,A-4\,B-5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{a\,(4\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{32\,d}\sqrt{a\,(1+\text{Cos}[c+d\,x])}\left(\frac{1}{\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}}\,i\,\sqrt{2}\,a\,(8\,A+12\,B+7\,C)\right.$$
$$e^{\frac{i\,d\,x}{2}}\,(1+\text{Cos}[c+d\,x])\,\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.$$
$$\left.\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\sqrt{e^{-i\,d\,x}\,\left(\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]\right)}+$$
$$\left.\frac{8\,a\,(8\,A+C+(4\,B+7\,C)\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,(c+d\,x)])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,4,\,0\right\}$$

$$\frac{a^{3/2}\,(2\,B+3\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{d}-\frac{a^2\,(8\,A+6\,B-3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(A+B)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}$$

$$\frac{1}{24\,d}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\,\left(\frac{1}{\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\right.$$

$$3\,i\,\sqrt{2}\,a\,(2\,B+3\,C)\,e^{\frac{i\,d\,x}{2}}\,(1+\text{Cos}[c+d\,x])\,\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right]-\right.$$

$$\left.\text{Log}\left[2\,\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\right)$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\sqrt{e^{-i\,d\,x}\,\left(\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]\right)}+$$

$$\left.\frac{4\,a\,(4\,A+3\,C+4\,(5\,A+3\,B)\,\text{Cos}[c+d\,x]+3\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\text{Cos}[c+d\,x]^{3/2}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$

$$\frac{(2\,B-C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}+\frac{\sqrt{2}\,(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}+\frac{C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\,e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(2\,B\,d\,x-C\,d\,x-i\,(2\,B-C)\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-2\,i\,\sqrt{2}\,(A-B+C)\right.\right.$$

$$\text{Log}\left[2\,\sqrt{2}\,(A-B+C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,B\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,C\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$2\,i\,\sqrt{2}\,A\,\text{Log}\left[d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-2\,i\,\sqrt{2}\,B\,\text{Log}\left[d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$\left.\left.2\,i\,\sqrt{2}\,C\,\text{Log}\left[d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{4\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}},\,x,\,4,\,0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}-\frac{\sqrt{2}\,(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{\sqrt{a}\,d}+\frac{2\,A\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{d\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\frac{1}{\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\right.$$
$$\left(C\,d\,x-i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\;(A-B+C)\,\text{Log}\left[\sqrt{2}\;(A-B+C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,C\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$
$$i\,\sqrt{2}\;A\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+i\,\sqrt{2}\;B\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$\left.\left.i\,\sqrt{2}\;C\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{4\,A\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\;\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\;x,\;5,\;0\right\}$$

$$\frac{(2\,B-3\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{(A-5\,B+9\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\;a^{3/2}\,d}-$$
$$\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(A-B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$
$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\;\left(4\,B\,d\,x-6\,C\,d\,x-2\,i\,(2\,B-3\,C)\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-\right.\right.$$
$$i\,\sqrt{2}\;(A-5\,B+9\,C)\,\text{Log}\left[\sqrt{2}\;(A-5\,B+9\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+4\,i\,B\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$6\,i\,C\,\text{Log}\left[-2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+i\,\sqrt{2}\;A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$\left.\left.5\,i\,\sqrt{2}\;B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+9\,i\,\sqrt{2}\;C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\right.$$
$$\left.\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\;(A-B+3\,C+2\,C\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\;(a+a\,\text{Cos}[c+d\,x])^{3/2}},\;x,\;4,\;0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{3/2}\,d}+\frac{(3\,A+B-5\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{2\,\sqrt{2}\;a^{3/2}\,d}-\frac{(A-B+C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{2\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(4\,C\,d\,x-4\,i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(3\,A+B-5\,C)\,\text{Log}\left[\sqrt{2}\,(3\,A+B-5\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+4\,i\,C\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-5\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-\frac{2\,(A-B+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(2\,B-5\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}+\frac{(3\,A-43\,B+115\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{(A+7\,B-15\,C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(3\,A-11\,B+35\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(32\,B\,d\,x-80\,C\,d\,x-16\,i\,(2\,B-5\,C)\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-i\,\sqrt{2}\,(3\,A-43\,B+115\,C)\,\text{Log}\left[\sqrt{2}\,(3\,A-43\,B+115\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,B\,\text{Log}\left[-d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-80\,i\,C\,\text{Log}\left[-d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-43\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+115\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{\sqrt{\text{Cos}[c+d\,x]}\,(3\,A-11\,B+43\,C+(7\,A-15\,B+55\,C)\,\text{Cos}[c+d\,x]+8\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{a^{5/2}\,d}+\frac{(5\,A+3\,B-43\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]}{16\,\sqrt{2}\,a^{5/2}\,d}-\frac{(A-B+C)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}+\frac{(5\,A+3\,B-11\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}$$

$$\frac{1}{8\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{2}\;e^{\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{e^{-i\,(c+d\,x)}\,\left(1+e^{2\,i\,(c+d\,x)}\right)}\,\left(32\,C\,d\,x-32\,i\,C\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-\right.\right.$$

$$i\,\sqrt{2}\,(5\,A+3\,B-43\,C)\,\text{Log}\left[\sqrt{2}\,(5\,A+3\,B-43\,C)\,\left(1+e^{i\,(c+d\,x)}\right)\right]+32\,i\,C\,\text{Log}\left[d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$5\,i\,\sqrt{2}\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,\sqrt{2}\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$

$$\left.43\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{\sqrt{\text{Cos}[c+d\,x]}\,(5\,A+3\,B-11\,C+(A+7\,B-15\,C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{2\,a\,(3\,A+3\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+$$

$$\frac{2\,a\,(5\,A+7\,B+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{2\,a\,(3\,A+3\,B+5\,C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,a\,(5\,A+7\,B+7\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{2\,a\,(2\,A+7\,B)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{210} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\left(-\frac{63\sqrt{2}\, A e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$

$$\frac{63\sqrt{2}\, B e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-$$

$$\frac{105\sqrt{2}\, C e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$+\frac{50 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{70 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{70 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{1}{d}2\sqrt{\text{Sec}[c+d x]}$$

$$\left.\left(21(3A+3B+5C)\text{Cos}[d x]\text{Csc}[c]+\left(5(5A+7(B+C))+21(A+B)\text{Sec}[c+d x]+15 A\,\text{Sec}[c+d x]^2\right)\text{Tan}[c+d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2},\ x,\ 7,\ 0\right\}$$

$$-\frac{2a(3A+5B+5C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+$$

$$\frac{2a(A+B+3C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+\frac{2a(3A+5B+5C)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{5d}+$$

$$\frac{2a(2A+5B)\text{Sec}[c+d x]^{3/2}\text{Sin}[c+d x]}{15d}+\frac{2A(a+a\,\text{Cos}[c+d x])\text{Sec}[c+d x]^{5/2}\text{Sin}[c+d x]}{5d}$$

$$\frac{1}{30} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\left(-\frac{9\sqrt{2}\, A\, e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$

$$\frac{15\sqrt{2}\, B\, e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-$$

$$\frac{15\sqrt{2}\, C\, e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+$$

$$\frac{10 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{10 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{30 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\left.\frac{2\sqrt{\text{Sec}[c+d x]}\,(3(3A+5(B+C))\text{Cos}[d x]\text{Csc}[c]+(5(A+B)+3A\text{Sec}[c+d x])\text{Tan}[c+d x])}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+d x])\left(A+B\text{Cos}[c+d x]+C\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2},\ x,\ 6,\ 0\right\}$$

$$-\frac{2a(A+B-C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{2a(A+3B+3C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}+$$

$$\frac{2a(2A+3B)\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{3d}+\frac{2A(a+a\text{Cos}[c+d x])\text{Sec}[c+d x]^{3/2}\text{Sin}[c+d x]}{3d}$$

$$\frac{1}{6} a (1+\text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\, A e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$

$$\frac{3\sqrt{2}\, B e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+$$

$$\frac{3\sqrt{2}\, C e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+$$

$$\frac{2 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{6 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{6 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\left.\frac{\sqrt{\text{Sec}[c+d x]}\,(-3(-2A-2B+C+C\,\text{Cos}[2c])\,\text{Cos}[d x]\,\text{Csc}[c]+6 C\,\text{Cos}[c]\,\text{Sin}[d x]+2 A\,\text{Tan}[c+d x])}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{3/2},\ x,\ 6,\ 0\right\}$$

$$-\frac{2 a (A-B-C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{2 a (3A+3B+C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 d}-$$

$$\frac{2 a (3A-C)\,\text{Sin}[c+d x]}{3 d\sqrt{\text{Sec}[c+d x]}}+\frac{2 A (a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{d}$$

$$\frac{1}{3 d} a\sqrt{\text{Sec}[c+d x]}$$

$$\left(6 i A\,\text{Cos}[c+d x]-6 i B\,\text{Cos}[c+d x]-6 i C\,\text{Cos}[c+d x]+2(3A+3B+C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\right.$$

$$\left.6 i (A-B-C) e^{-i(c+dx)}\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]+6 A\,\text{Sin}[c+d x]+C\,\text{Sin}[2(c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,a\,(5\,A+5\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+$$
$$\frac{2\,a\,(3\,A+B+C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+$$
$$\frac{2\,a\,(5\,B+2\,C)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{5\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$\frac{1}{30\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(20\,(3\,A+B+C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+$$
$$12\,i\,(5\,A+5\,B+3\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+$$
$$2\,\text{Cos}[c+d\,x]\,(10\,(B+C)\,\text{Sin}[c+d\,x]-3\,i\,(10\,A+10\,B+6\,C+i\,C\,\text{Sin}[2\,(c+d\,x)]))\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$
$$\frac{2\,a\,(5\,A+3\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+$$
$$\frac{2\,a\,(7\,A+7\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+$$
$$\frac{2\,a\,(7\,B+2\,C)\,\text{Sin}[c+d\,x]}{35\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{7\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(7\,A+7\,B+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$\frac{1}{420\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(40\,(7\,A+7\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+$$
$$168\,i\,(5\,A+3\,(B+C))\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+2\,\text{Cos}[c+d\,x]$$
$$(5\,(28\,A+28\,B+23\,C)\,\text{Sin}[c+d\,x]-3\,i\,(28\,(5\,A+3\,(B+C))+14\,i\,(B+C)\,\text{Sin}[2\,(c+d\,x)]+5\,i\,C\,\text{Sin}[3\,(c+d\,x)]))\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$
$$\frac{2\,a\,(9\,A+9\,B+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+$$
$$\frac{2\,a\,(7\,A+5\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a\,(9\,B+2\,C)\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{5/2}}+$$
$$\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{2\,a\,(9\,A+9\,B+7\,C)\,\text{Sin}[c+d\,x]}{45\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,a\,(7\,A+5\,B+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$
$$\frac{1}{2520\,d}\,a\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(240\,(7\,A+5\,(B+C))\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+$$
$$336\,i\,(9\,A+9\,B+7\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]+$$
$$2\,\text{Cos}[c+d\,x]\,(-1512\,i\,A-1512\,i\,B-1176\,i\,C+30\,(28\,A+23\,(B+C))\,\text{Sin}[c+d\,x]+$$
$$14\,(18\,A+18\,B+19\,C)\,\text{Sin}[2\,(c+d\,x)]+90\,B\,\text{Sin}[3\,(c+d\,x)]+90\,C\,\text{Sin}[3\,(c+d\,x)]+35\,C\,\text{Sin}[4\,(c+d\,x)])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{11/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{4\,a^2\,(8\,A+9\,B+12\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+$$

$$\frac{4\,a^2\,(5\,A+6\,B+7\,C)\,\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{4\,a^2\,(8\,A+9\,B+12\,C)\,\sqrt{\text{Sec}[c+d\,x]}\ \text{Sin}[c+d\,x]}{15\,d}+$$

$$\frac{4\,a^2\,(5\,A+6\,B+7\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,a^2\,(19\,A+27\,B+21\,C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{2\,a\,(4\,A+9\,B)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}$$

$$-\frac{1}{15\,d}4\,\sqrt{2}\ A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4-$$

$$\frac{1}{5\,\sqrt{2}\ d}3\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4-$$

$$\frac{1}{5\,d}2\,\sqrt{2}\ C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4+$$

$$\frac{5\,A\,\sqrt{\text{Cos}[c+d\,x]}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Sec}[c+d\,x]}}{7\,d}+$$

$$\frac{C\,\sqrt{\text{Cos}[c+d\,x]}\ (a+a\,\text{Cos}[c+d\,x])^2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Sec}[c+d\,x]}}{3\,d}+$$

$$(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\text{Sec}[c+d\,x]}\ \left(\frac{(8\,A+9\,B+12\,C)\,\text{Cos}[d\,x]\,\text{Csc}[c]}{15\,d}+\right.$$

$$\frac{A\,\text{Sec}[c]\,\text{Sec}[c+d\,x]^4\,\text{Sin}[d\,x]}{18\,d}+\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^3\,(7\,A\,\text{Sin}[c]+18\,A\,\text{Sin}[d\,x]+9\,B\,\text{Sin}[d\,x])}{126\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]^2\,(90\,A\,\text{Sin}[c]+45\,B\,\text{Sin}[c]+112\,A\,\text{Sin}[d\,x]+126\,B\,\text{Sin}[d\,x]+63\,C\,\text{Sin}[d\,x])}{630\,d}+$$

$$\frac{\text{Sec}[c]\,\text{Sec}[c+d\,x]\,(112\,A\,\text{Sin}[c]+126\,B\,\text{Sin}[c]+63\,C\,\text{Sin}[c]+150\,A\,\text{Sin}[d\,x]+180\,B\,\text{Sin}[d\,x]+210\,C\,\text{Sin}[d\,x])}{630\,d}+$$

$$\left.\frac{(5\,A+6\,B+7\,C)\,\text{Tan}[c]}{21\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{4 a^2 (3 A+4 B+5 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+$$
$$\frac{4 a^2 (6 A+7 B+14 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{21 d}+$$
$$\frac{4 a^2 (3 A+4 B+5 C) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{5 d}+\frac{2 a^2 (33 A+49 B+35 C) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{105 d}+$$
$$\frac{2 a (4 A+7 B) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{35 d}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{7 d}$$

$$\frac{1}{210} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4$$
$$\left(-\frac{63 \sqrt{2}\, A e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}-\right.$$
$$\frac{84 \sqrt{2}\, B e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}-$$
$$\frac{105 \sqrt{2}\, C e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)}{d}$$
$$+\frac{60 A \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$
$$\frac{70 B \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$
$$\frac{140 C \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{d}+\frac{1}{d}\sqrt{\text{Sec}[c+d x]}$$
$$\left.\left(42 (3 A+4 B+5 C) \text{Cos}[d x] \text{Csc}[c]+\left(60 A+70 B+35 C+21 (2 A+B) \text{Sec}[c+d x]+15 A \text{Sec}[c+d x]^2\right) \text{Tan}[c+d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^2 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{7/2}, x, 7, 0\right\}$$
$$-\frac{4 a^2 (4 A+5 B) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{5 d}+$$
$$\frac{4 a^2 (A+2 B+3 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{3 d}+\frac{2 a^2 (17 A+25 B+15 C) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{15 d}+$$
$$\frac{2 a (4 A+5 B) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{15 d}+\frac{2 A (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{30} a^2 (1+\text{Cos}[c+d x])^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4$$

$$\left(-\frac{12\sqrt{2}\, A\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\right.$$

$$\frac{15\sqrt{2}\, B\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+$$

$$\frac{10 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{20 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{30 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{1}{2d}\sqrt{\text{Sec}[c+d x]}$$

$$\left.(3(16A+20B+5C-5C\,\text{Cos}[2c])\,\text{Cos}[d x]\,\text{Csc}[c]+30C\,\text{Cos}[c]\,\text{Sin}[d x]+2(10A+5B+3A\,\text{Sec}[c+d x])\,\text{Tan}[c+d x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2},x,7,0\right\}$$

$$-\frac{4a^2(A-C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{4a^2(2A+3B+2C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}-\frac{2a^2(5A+3B-C)\,\text{Sin}[c+d x]}{3d\sqrt{\text{Sec}[c+d x]}}+$$

$$\frac{2a(4A+3B)(a+a\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{3d}+\frac{2A(a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3d}$$

$$\frac{1}{6d}a^2\,\text{Sec}[c+d x]^{3/2}$$

$$\left(12iA-12iC+12iA\,\text{Cos}[2(c+d x)]-12iC\,\text{Cos}[2(c+d x)]+8(2A+3B+2C)\,\text{Cos}[c+d x]^{3/2}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\right.$$

$$12i(A-C)e^{-2i(c+d x)}\left(1+e^{2i(c+d x)}\right)^{3/2}\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]+$$

$$\left.4A\,\text{Sin}[c+d x]+C\,\text{Sin}[c+d x]+12A\,\text{Sin}[2(c+d x)]+6B\,\text{Sin}[2(c+d x)]+C\,\text{Sin}[3(c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^2\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{3/2},x,7,0\right\}$$

$$\frac{4a^2(5B+4C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+$$

$$\frac{4a^2(3A+2B+C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3d}-\frac{2a^2(15A-5B-7C)\,\text{Sin}[c+d x]}{15d\sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{2a(5A-C)(a+a\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{5d\sqrt{\text{Sec}[c+d x]}}+\frac{2A(a+a\,\text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{d}$$

$$\frac{1}{30\,d}\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(-120\,i\,B\,\text{Cos}[c+d\,x]-96\,i\,C\,\text{Cos}[c+d\,x]+40\,(3\,A+2\,B+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]+$$
$$24\,i\,(5\,B+4\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\Big[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\Big]+$$
$$60\,A\,\text{Sin}[c+d\,x]+3\,C\,\text{Sin}[c+d\,x]+10\,B\,\text{Sin}[2\,(c+d\,x)]+20\,C\,\text{Sin}[2\,(c+d\,x)]+3\,C\,\text{Sin}[3\,(c+d\,x)]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\Big\{(a+a\,\text{Cos}[c+d\,x])^2\,\big(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\big)\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,7,\,0\Big\}$$

$$\frac{4\,a^2\,(5\,A+4\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,d}+$$
$$\frac{4\,a^2\,(14\,A+7\,B+6\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a^2\,(35\,A+49\,B+33\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$
$$\frac{2\,a\,(7\,B+4\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{35\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{7\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{420\,d}\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(80\,(14\,A+7\,B+6\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]+$$
$$336\,i\,(5\,A+4\,B+3\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\Big[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\Big]+2\,\text{Cos}[c+d\,x]$$
$$(5\,(28\,A+56\,B+51\,C)\,\text{Sin}[c+d\,x]+42\,(B+2\,C)\,\text{Sin}[2\,(c+d\,x)]-3\,i\,(56\,(5\,A+4\,B+3\,C)+5\,i\,C\,\text{Sin}[3\,(c+d\,x)]))\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\Big\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\big(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\big)}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,8,\,0\Big\}$$

$$\frac{4\,a^2\,(12\,A+9\,B+8\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\text{Sec}[c+d\,x]}}{15\,d}+$$
$$\frac{4\,a^2\,(7\,A+6\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\text{Sec}[c+d\,x]}}{21\,d}+\frac{2\,a^2\,(21\,A+27\,B+19\,C)\,\text{Sin}[c+d\,x]}{105\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$
$$\frac{2\,a\,(9\,B+4\,C)\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{63\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{9\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^2\,(7\,A+6\,B+5\,C)\,\text{Sin}[c+d\,x]}{21\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{2520\,d}\,a^2\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(480\,(7\,A+6\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]+$$
$$672\,i\,(12\,A+9\,B+8\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\Big[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\Big]+$$
$$2\,\text{Cos}[c+d\,x]\,(-4032\,i\,A-3024\,i\,B-2688\,i\,C+30\,(56\,A+51\,B+46\,C)\,\text{Sin}[c+d\,x]+$$
$$14\,(18\,A+36\,B+37\,C)\,\text{Sin}[2\,(c+d\,x)]+90\,B\,\text{Sin}[3\,(c+d\,x)]+180\,C\,\text{Sin}[3\,(c+d\,x)]+35\,C\,\text{Sin}[4\,(c+d\,x)])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\Big\{\frac{(a+a\,\text{Cos}[c+d\,x])^2\,\big(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\big)}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,9,\,0\Big\}$$

$$\frac{4 a^2 (9 A+8 B+7 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+$$
$$\frac{4 a^2 (66 A+55 B+50 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{231 d}+$$
$$\frac{2 a^2 (99 A+121 B+89 C) \text{Sin}[c+d x]}{693 d \text{Sec}[c+d x]^{5/2}}+\frac{2 a (11 B+4 C) (a+a \text{Cos}[c+d x]) \text{Sin}[c+d x]}{99 d \text{Sec}[c+d x]^{5/2}}+$$
$$\frac{2 C (a+a \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{11 d \text{Sec}[c+d x]^{5/2}}+\frac{4 a^2 (9 A+8 B+7 C) \text{Sin}[c+d x]}{45 d \text{Sec}[c+d x]^{3/2}}+\frac{4 a^2 (66 A+55 B+50 C) \text{Sin}[c+d x]}{231 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{55440 d} a^2 \sqrt{\text{Sec}[c+d x]}$$
$$\Big(960 (66 A+55 B+50 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+14784 i (9 A+8 B+7 C) e^{-i (c+d x)} \sqrt{1+e^{2 i (c+d x)}}$$
$$\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]+2 \text{Cos}[c+d x] (-66528 i A-59136 i B-51744 i C+$$
$$30 (1122 A+1012 B+941 C) \text{Sin}[c+d x]+308 (36 A+37 B+38 C) \text{Sin}[2 (c+d x)]+1980 A \text{Sin}[3 (c+d x)]+$$
$$3960 B \text{Sin}[3 (c+d x)]+4545 C \text{Sin}[3 (c+d x)]+770 B \text{Sin}[4 (c+d x)]+1540 C \text{Sin}[4 (c+d x)]+315 C \text{Sin}[5 (c+d x)])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{13/2}, x, 10, 0\right\}$$
$$-\frac{4 a^3 (15 A+17 B+21 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{15 d}+$$
$$\frac{4 a^3 (105 A+121 B+143 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right] \sqrt{\text{Sec}[c+d x]}}{231 d}+$$
$$\frac{4 a^3 (15 A+17 B+21 C) \sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{15 d}+\frac{4 a^3 (105 A+121 B+143 C) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{231 d}+$$
$$\frac{4 a^3 (210 A+253 B+264 C) \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{1155 d}+$$
$$\frac{2 a^2 (105 A+143 B+99 C) (a+a \text{Cos}[c+d x]) \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{693 d}+$$
$$\frac{2 a (6 A+11 B) (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{9/2} \text{Sin}[c+d x]}{99 d}+\frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{11/2} \text{Sin}[c+d x]}{11 d}$$

$$-\frac{1}{2\sqrt{2}\,d}A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$
$$\frac{1}{30\sqrt{2}\,d}17\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$
$$\frac{1}{10\sqrt{2}\,d}7\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6+$$
$$\frac{5\,A\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{22\,d}+$$
$$\frac{11\,B\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$
$$\frac{13\,C\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$
$$(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{(15\,A+17\,B+21\,C)\,\mathrm{Cos}[dx]\,\mathrm{Csc}[c]}{30\,d}+\right.$$
$$\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^5\,\mathrm{Sin}[dx]}{44\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^4\,(9\,A\,\mathrm{Sin}[c]+33\,A\,\mathrm{Sin}[dx]+11\,B\,\mathrm{Sin}[dx])}{396\,d}+$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^3\,(231\,A\,\mathrm{Sin}[c]+77\,B\,\mathrm{Sin}[c]+378\,A\,\mathrm{Sin}[dx]+297\,B\,\mathrm{Sin}[dx]+99\,C\,\mathrm{Sin}[dx])}{2772\,d}+$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^2\,(1890\,A\,\mathrm{Sin}[c]+1485\,B\,\mathrm{Sin}[c]+495\,C\,\mathrm{Sin}[c]+2310\,A\,\mathrm{Sin}[dx]+2618\,B\,\mathrm{Sin}[dx]+2079\,C\,\mathrm{Sin}[dx])}{13\,860\,d}+$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,(2310\,A\,\mathrm{Sin}[c]+2618\,B\,\mathrm{Sin}[c]+2079\,C\,\mathrm{Sin}[c]+3150\,A\,\mathrm{Sin}[dx]+3630\,B\,\mathrm{Sin}[dx]+4290\,C\,\mathrm{Sin}[dx])}{13\,860\,d}+$$
$$\left.\frac{(105\,A+121\,B+143\,C)\,\mathrm{Tan}[c]}{462\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^3\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^{11/2},\,x,\,9,\,0\right\}$$
$$-\frac{4\,a^3\,(17\,A+21\,B+27\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{15\,d}+$$
$$\frac{4\,a^3\,(11\,A+13\,B+21\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{21\,d}+$$
$$\frac{4\,a^3\,(17\,A+21\,B+27\,C)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{15\,d}+\frac{4\,a^3\,(32\,A+41\,B+42\,C)\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{105\,d}+$$
$$\frac{2\,a^2\,(73\,A+99\,B+63\,C)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{315\,d}+$$
$$\frac{2\,a\,(2\,A+3\,B)\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{21\,d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]^{9/2}\,\mathrm{Sin}[c+dx]}{9\,d}$$

$$-\frac{1}{30\sqrt{2}\,d}17\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$
$$\frac{1}{10\sqrt{2}\,d}7\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6-$$
$$\frac{1}{10\sqrt{2}\,d}9\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Csc}[c]$$
$$\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6+$$
$$\frac{11\,A\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$
$$\frac{13\,B\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{42\,d}+$$
$$\frac{C\sqrt{\mathrm{Cos}[c+dx]}\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}}{2\,d}+$$
$$(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^6\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{(17\,A+21\,B+27\,C)\,\mathrm{Cos}[dx]\,\mathrm{Csc}[c]}{30\,d}+\right.$$
$$\frac{A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^4\,\mathrm{Sin}[dx]}{36\,d}+\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^3\,(7\,A\,\mathrm{Sin}[c]+27\,A\,\mathrm{Sin}[dx]+9\,B\,\mathrm{Sin}[dx])}{252\,d}+$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]^2\,(135\,A\,\mathrm{Sin}[c]+45\,B\,\mathrm{Sin}[c]+238\,A\,\mathrm{Sin}[dx]+189\,B\,\mathrm{Sin}[dx]+63\,C\,\mathrm{Sin}[dx])}{1260\,d}+$$
$$\frac{\mathrm{Sec}[c]\,\mathrm{Sec}[c+dx]\,(238\,A\,\mathrm{Sin}[c]+189\,B\,\mathrm{Sin}[c]+63\,C\,\mathrm{Sin}[c]+330\,A\,\mathrm{Sin}[dx]+390\,B\,\mathrm{Sin}[dx]+315\,C\,\mathrm{Sin}[dx])}{1260\,d}+$$
$$\left.\frac{(22\,A+26\,B+21\,C)\,\mathrm{Tan}[c]}{84\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+dx])^3\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^{9/2},\,x,\,8,\,0\right\}$$
$$-\frac{4\,a^3\,(7\,A+9\,B+5\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{5\,d}+$$
$$\frac{4\,a^3\,(13\,A+21\,B+35\,C)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{21\,d}+$$
$$\frac{4\,a^3\,(106\,A+147\,B+140\,C)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{105\,d}+\frac{2\,a^2\,(7\,A+9\,B+5\,C)\,(a+a\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{15\,d}+$$
$$\frac{2\,a\,(6\,A+7\,B)\,(a+a\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{35\,d}+\frac{2\,A\,(a+a\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{7\,d}$$

$$\frac{1}{420} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 147 \sqrt{2}\, A e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\right.$$

$$\text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i(c+d x)}\right]\right) -$$

$$\frac{189 \sqrt{2}\, B e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i(c+d x)}\right]\right)}{d}$$

$$-$$

$$\frac{105 \sqrt{2}\, C e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i(c+d x)}\right]\right)}{d}$$

$$+ \frac{130 A \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} +$$

$$\frac{210 B \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} +$$

$$\frac{350 C \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d} + \frac{1}{2 d}$$

$$\sqrt{\text{Sec}[c+d x]} \left(21 (28 A+36 B+25 C-5 C \text{Cos}[2 c]) \text{Cos}[d x] \text{Csc}[c] + 210 C \text{Cos}[c] \text{Sin}[d x] +\right.$$

$$\left.\left. 2 \left(5 (26 A+21 B+7 C)+21 (3 A+B) \text{Sec}[c+d x]+15 A \text{Sec}[c+d x]^2\right) \text{Tan}[c+d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a \text{Cos}[c+d x])^3 \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{7/2}, x, 8, 0\right\}$$

$$-\frac{4 a^3 (9 A+5 B-5 C) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 d} +$$

$$\frac{4 a^3 (3 A+5 B+5 C) \sqrt{\text{Cos}[c+d x]}\, \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 d} -$$

$$\frac{4 a^3 (21 A+20 B+5 C) \text{Sin}[c+d x]}{15 d \sqrt{\text{Sec}[c+d x]}} + \frac{2 a^2 (33 A+35 B+15 C) (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}\, \text{Sin}[c+d x]}{15 d} +$$

$$\frac{2 a (6 A+5 B) (a+a \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{15 d} + \frac{2 A (a+a \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{60} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6$$

$$\left(-\frac{27\sqrt{2}\, A\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}-\right.$$

$$\frac{15\sqrt{2}\, B\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+$$

$$\frac{15\sqrt{2}\, C\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+$$

$$\frac{30 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{50 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{50 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{1}{2d}\sqrt{\text{Sec}[c+d x]}\left(-3(-36A-25B+5C+5(B+3C)\text{Cos}[2c])\text{Cos}[d x]\text{Csc}[c]+5C\text{Cos}[2dx]\text{Sin}[2c]+\right.$$

$$30B\text{Cos}[c]\text{Sin}[dx]+90C\text{Cos}[c]\text{Sin}[dx]+30A\text{Sec}[c]\text{Sec}[c+dx]\text{Sin}[dx]+10B\text{Sec}[c]\text{Sec}[c+dx]\text{Sin}[dx]+$$

$$\left.\left.6A\text{Sec}[c]\text{Sec}[c+dx]^2\text{Sin}[dx]+5C\text{Cos}[2c]\text{Sin}[2dx]+30A\text{Tan}[c]+10B\text{Tan}[c]+6A\text{Sec}[c+dx]\text{Tan}[c]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\text{Cos}[c+dx])^3\left(A+B\text{Cos}[c+dx]+C\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^{5/2},x,8,0\right\}$$

$$-\frac{4a^3(5A-5B-9C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{5d}+$$

$$\frac{4a^3(5A+5B+3C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3d}-$$

$$\frac{4a^3(20A+5B-6C)\text{Sin}[c+dx]}{15d\sqrt{\text{Sec}[c+dx]}}-\frac{2a^2(35A+15B-3C)(a+a\text{Cos}[c+dx])\text{Sin}[c+dx]}{15d\sqrt{\text{Sec}[c+dx]}}+$$

$$\frac{2a(2A+B)(a+a\text{Cos}[c+dx])^2\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{d}+\frac{2A(a+a\text{Cos}[c+dx])^3\text{Sec}[c+dx]^{3/2}\text{Sin}[c+dx]}{3d}$$

$$\frac{1}{60} a^3 (1+\text{Cos}[c+d x])^3 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^6$$

$$\left(-\frac{15\sqrt{2}\, A\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+\right.$$

$$\frac{15\sqrt{2}\, B\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+$$

$$\frac{27\sqrt{2}\, C\, e^{-i(2c+d x)}\sqrt{\frac{e^{i(c+d x)}}{1+e^{2i(c+d x)}}}\,\text{Csc}[c]\left(1+e^{2i(c+d x)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]\right)}{d}+$$

$$\frac{50 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{50 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{30 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{1}{8d}\sqrt{\text{Sec}[c+d x]}\,(-3(-100 A+20 B+71 C+(20 A+60 B+73 C)\text{Cos}[2c])\text{Cos}[d x]\text{Csc}[c]+20(B+3C)\text{Cos}[2d x]\text{Sin}[2c]+$$

$$6 C\,\text{Cos}[3d x]\,\text{Sin}[3c]+120 A\,\text{Cos}[c]\,\text{Sin}[d x]+360 B\,\text{Cos}[c]\,\text{Sin}[d x]+438 C\,\text{Cos}[c]\,\text{Sin}[d x]+40 A\,\text{Sec}[c]$$

$$\left.\text{Sec}[c+d x]\,\text{Sin}[d x]+20 B\,\text{Cos}[2c]\,\text{Sin}[2d x]+60 C\,\text{Cos}[2c]\,\text{Sin}[2d x]+6 C\,\text{Cos}[3c]\,\text{Sin}[3d x]+40 A\,\text{Tan}[c]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^3\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{3/2},x,8,0\right\}$$

$$\frac{4a^3(5A+9B+7C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{5d}+$$

$$\frac{4a^3(35A+21B+13C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{21d}-$$

$$\frac{4a^3(35A-42B-41C)\,\text{Sin}[c+d x]}{105d\sqrt{\text{Sec}[c+d x]}}-\frac{2a^2(35A-7B-11C)(a+a\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{35d\sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{2a(7A-C)(a+a\,\text{Cos}[c+d x])^2\,\text{Sin}[c+d x]}{7d\sqrt{\text{Sec}[c+d x]}}+\frac{2A(a+a\,\text{Cos}[c+d x])^3\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{d}$$

$$\frac{1}{420d}a^3\sqrt{\text{Sec}[c+d x]}\,\left(-1680 i A\,\text{Cos}[c+d x]-3024 i B\,\text{Cos}[c+d x]-\right.$$

$$2352 i C\,\text{Cos}[c+d x]+80(35A+21B+13C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+$$

$$336 i(5A+9B+7C)e^{-i(c+d x)}\sqrt{1+e^{2i(c+d x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+d x)}\right]+840 A\,\text{Sin}[c+d x]+$$

$$42 B\,\text{Sin}[c+d x]+126 C\,\text{Sin}[c+d x]+140 A\,\text{Sin}[2(c+d x)]+420 B\,\text{Sin}[2(c+d x)]+$$

$$\left.550 C\,\text{Sin}[2(c+d x)]+42 B\,\text{Sin}[3(c+d x)]+126 C\,\text{Sin}[3(c+d x)]+15 C\,\text{Sin}[4(c+d x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]},\ x,\ 8,\ 0\right\}$$

$$\frac{4\,a^3\,(27\,A+21\,B+17\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,d}+$$

$$\frac{4\,a^3\,(21\,A+13\,B+11\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,d}+$$

$$\frac{4\,a^3\,(42\,A+41\,B+32\,C)\,\mathrm{Sin}[c+d\,x]}{105\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,a^2\,(63\,A+99\,B+73\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{315\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{2\,a\,(3\,B+2\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sin}[c+d\,x]}{21\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,C\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sin}[c+d\,x]}{9\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{2520\,d}\,a^3\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\Big(480\,(21\,A+13\,B+11\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]+$$
$$672\,i\,(27\,A+21\,B+17\,C)\,e^{-i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+$$
$$2\,\mathrm{Cos}[c+d\,x]\,(-9072\,i\,A-7056\,i\,B-5712\,i\,C+30\,(84\,A+107\,B+97\,C)\,\mathrm{Sin}[c+d\,x]+$$
$$14\,(18\,A+54\,B+73\,C)\,\mathrm{Sin}[2\,(c+d\,x)]+90\,B\,\mathrm{Sin}[3\,(c+d\,x)]+270\,C\,\mathrm{Sin}[3\,(c+d\,x)]+35\,C\,\mathrm{Sin}[4\,(c+d\,x)])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 9,\ 0\right\}$$

$$\frac{4\,a^3\,(21\,A+17\,B+15\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,d}+$$

$$\frac{4\,a^3\,(143\,A+121\,B+105\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{231\,d}+$$

$$\frac{4\,a^3\,(264\,A+253\,B+210\,C)\,\mathrm{Sin}[c+d\,x]}{1155\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{2\,a^2\,(99\,A+143\,B+105\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{693\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{2\,a\,(11\,B+6\,C)\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sin}[c+d\,x]}{99\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{2\,C\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sin}[c+d\,x]}{11\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{4\,a^3\,(143\,A+121\,B+105\,C)\,\mathrm{Sin}[c+d\,x]}{231\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{55\,440\,d}$$
$$a^3\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\Big(960\,(143\,A+121\,B+105\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]+14\,784\,i\,(21\,A+17\,B+15\,C)\,e^{-i\,(c+d\,x)}$$
$$\sqrt{1+e^{2\,i\,(c+d\,x)}}\ \mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -e^{2\,i\,(c+d\,x)}\right]+2\,\mathrm{Cos}[c+d\,x]\,(-155\,232\,i\,A-125\,664\,i\,B-110\,880\,i\,C+$$
$$30\,(2354\,A+2134\,B+1953\,C)\,\mathrm{Sin}[c+d\,x]+308\,(54\,A+73\,B+75\,C)\,\mathrm{Sin}[2\,(c+d\,x)]+1980\,A\,\mathrm{Sin}[3\,(c+d\,x)]+$$
$$5940\,B\,\mathrm{Sin}[3\,(c+d\,x)]+8505\,C\,\mathrm{Sin}[3\,(c+d\,x)]+770\,B\,\mathrm{Sin}[4\,(c+d\,x)]+2310\,C\,\mathrm{Sin}[4\,(c+d\,x)]+315\,C\,\mathrm{Sin}[5\,(c+d\,x)])\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+a\,\mathrm{Cos}[c+d\,x])^3\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 10,\ 0\right\}$$

$$\frac{4 a^3 (221 A+195 B+175 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{195 d}+$$

$$\frac{4 a^3 (121 A+105 B+95 C) \sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{231 d}+\frac{20 a^3 (286 A+273 B+236 C)\ \text{Sin}[c+d x]}{9009 d\ \text{Sec}[c+d x]^{5/2}}+$$

$$\frac{2 a^2 (143 A+195 B+145 C)\ (a+a\ \text{Cos}[c+d x])\ \text{Sin}[c+d x]}{1287 d\ \text{Sec}[c+d x]^{5/2}}+\frac{2 a (13 B+6 C)\ (a+a\ \text{Cos}[c+d x])^2\ \text{Sin}[c+d x]}{143 d\ \text{Sec}[c+d x]^{5/2}}+$$

$$\frac{2 C\ (a+a\ \text{Cos}[c+d x])^3\ \text{Sin}[c+d x]}{13 d\ \text{Sec}[c+d x]^{5/2}}+\frac{4 a^3 (221 A+195 B+175 C)\ \text{Sin}[c+d x]}{585 d\ \text{Sec}[c+d x]^{3/2}}+\frac{4 a^3 (121 A+105 B+95 C)\ \text{Sin}[c+d x]}{231 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{30\sqrt{2}\ d}17 A\ e^{-i (2 c+d x)}\sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ (a+a\ \text{Cos}[c+d x])^3\ \text{Csc}[c]$$

$$\left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6+$$

$$\frac{1}{2\sqrt{2}\ d}B\ e^{-i (2 c+d x)}\sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ (a+a\ \text{Cos}[c+d x])^3\ \text{Csc}[c]$$

$$\left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6+$$

$$\frac{1}{78\sqrt{2}\ d}35 C\ e^{-i (2 c+d x)}\sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}}\ (a+a\ \text{Cos}[c+d x])^3\ \text{Csc}[c]$$

$$\left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i (c+d x)}}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i (c+d x)}\right]\right)\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6+$$

$$\frac{11 A\sqrt{\text{Cos}[c+d x]}\ (a+a\ \text{Cos}[c+d x])^3\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\sqrt{\text{Sec}[c+d x]}}{42 d}+$$

$$\frac{5 B\sqrt{\text{Cos}[c+d x]}\ (a+a\ \text{Cos}[c+d x])^3\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\sqrt{\text{Sec}[c+d x]}}{22 d}+$$

$$\frac{95 C\sqrt{\text{Cos}[c+d x]}\ (a+a\ \text{Cos}[c+d x])^3\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\sqrt{\text{Sec}[c+d x]}}{462 d}+$$

$$(a+a\ \text{Cos}[c+d x])^3\ \text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^6\sqrt{\text{Sec}[c+d x]}$$

$$\left(-\frac{(77272 A+67080 B+59375 C+92456 A\ \text{Cos}[2 c]+82680 B\ \text{Cos}[2 c]+75025 C\ \text{Cos}[2 c])\ \text{Cos}[d x]\ \text{Csc}[c]}{299520 d}+\right.$$

$$\frac{(4664 A+4473 B+4267 C)\ \text{Cos}[2 d x]\ \text{Sin}[2 c]}{29568 d}+\frac{(7852 A+8580 B+9005 C)\ \text{Cos}[3 d x]\ \text{Sin}[3 c]}{149760 d}+$$

$$\frac{(33 A+49 B+59 C)\ \text{Cos}[4 d x]\ \text{Sin}[4 c]}{2464 d}+\frac{(52 A+156 B+245 C)\ \text{Cos}[5 d x]\ \text{Sin}[5 c]}{29952 d}+\frac{(B+3 C)\ \text{Cos}[6 d x]\ \text{Sin}[6 c]}{1408 d}+$$

$$\frac{C\ \text{Cos}[7 d x]\ \text{Sin}[7 c]}{3328 d}+\frac{(92456 A+82680 B+75025 C)\ \text{Cos}[c]\ \text{Sin}[d x]}{149760 d}+\frac{(4664 A+4473 B+4267 C)\ \text{Cos}[2 c]\ \text{Sin}[2 d x]}{29568 d}+$$

$$\frac{(7852 A+8580 B+9005 C)\ \text{Cos}[3 c]\ \text{Sin}[3 d x]}{149760 d}+\frac{(33 A+49 B+59 C)\ \text{Cos}[4 c]\ \text{Sin}[4 d x]}{2464 d}+$$

$$\left.\frac{(52 A+156 B+245 C)\ \text{Cos}[5 c]\ \text{Sin}[5 d x]}{29952 d}+\frac{(B+3 C)\ \text{Cos}[6 c]\ \text{Sin}[6 d x]}{1408 d}+\frac{C\ \text{Cos}[7 c]\ \text{Sin}[7 d x]}{3328 d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\ \text{Cos}[c+d x]+C\ \text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2}}{a+a\ \text{Cos}[c+d x]},\ x,\ 8,\ 0\right\}$$

$$-\frac{3\,(7\,A-5\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}-$$

$$\frac{(5\,A-5\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+\frac{3\,(7\,A-5\,B+5\,C)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{5\,a\,d}-$$

$$\frac{(5\,A-5\,B+3\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}+\frac{(7\,A-5\,B+5\,C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}-\frac{(A-B+C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}63\,\sqrt{2}\;A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{45\,\sqrt{2}\;B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-$$

$$\frac{45\,\sqrt{2}\;C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{50\,A\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{50\,B\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{30\,C\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{1}{d}2\,\sqrt{\text{Sec}[c+d\,x]}\left(9\,(7\,A-5\,B+5\,C)\,\text{Cos}[d\,x]\,\text{Csc}[c]-\right.$$

$$\left.\frac{1}{2}\,(13\,A-25\,B+15\,C+4\,(2\,A-5\,B)\,\text{Cos}[c+d\,x]+5\,(5\,A-5\,B+3\,C)\,\text{Cos}[2\,(c+d\,x)])\,\text{Sec}[c+d\,x]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{5/2}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$\frac{(3\,A-3\,B+C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(5\,A-3\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-\frac{(3\,A-3\,B+C)\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{a\,d}+$$

$$\frac{(5\,A-3\,B+3\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{(A-B+C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{9\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{9\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{3\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{10\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{6\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{6\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{2\sqrt{\text{Sec}[c+d\,x]}\left(-3\,(3\,A-3\,B+C)\,\text{Cos}[d\,x]\,\text{Csc}[c]+(5\,A-3\,B+3\,C+2\,A\,\text{Sec}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2}}{a+a\,\text{Cos}[c+d\,x]},x,6,0\right\}$$

$$-\frac{(3\,A-B+C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-$$

$$\frac{(A-B-C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(3\,A-B+C)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d}-\frac{(A-B+C)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-$$

$$\frac{\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{2\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{2\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\left(2\,A\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(A-B+C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+(3\,A-B+C)\,\text{Cos}\left[\frac{1}{2}\,(c+3\,d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}}{a+a\,\text{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{(A-B+3\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(A+B-C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+$$

$$\frac{3\,\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{2\left((A-B+2\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+C\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$-\frac{(A-3\,B+3\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d}+$$

$$\frac{(3\,A-3\,B+5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A-3\,B+5\,C)\,\text{Sin}[c+d\,x]}{3\,a\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-\frac{3\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}+\right.$$

$$\frac{9\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{9\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{6\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{6\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{10\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\left.\frac{\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((6\,A-12\,B+13\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(-6\,B+5\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+2\,C\,\text{Sin}[c]\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{d\sqrt{\text{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{3\,(5\,A-5\,B+7\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}-$$

$$\frac{(3\,A-5\,B+5\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}+\frac{(5\,A-5\,B+7\,C)\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(3\,A-5\,B+5\,C)\,\text{Sin}[c+d\,x]}{3\,a\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(\frac{45\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}-\right.$$

$$\frac{45\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$+\frac{63\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)}{d}$$

$$-\frac{30\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{50\,B\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{50\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-\frac{1}{d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\left((60\,A-65\,B+83\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(30\,A-25\,B+43\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]-\right.$$

$$\left.\left.2\,(5\,B-2\,C+2\,(5\,B-2\,C)\,\text{Cos}[c+d\,x]+3\,C\,\text{Cos}[2\,(c+d\,x)])\,\text{Sin}[c]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$-\frac{3\,(5\,A-7\,B+7\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,d}+$$

$$\frac{5\,(7\,A-7\,B+9\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{21\,a\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{d\,(a+a\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2}}+$$

$$\frac{(7\,A-7\,B+9\,C)\,\text{Sin}[c+d\,x]}{7\,a\,d\,\text{Sec}[c+d\,x]^{5/2}}-\frac{(5\,A-7\,B+7\,C)\,\text{Sin}[c+d\,x]}{5\,a\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{5\,(7\,A-7\,B+9\,C)\,\text{Sin}[c+d\,x]}{21\,a\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{105\,a\,(1+\text{Cos}[c+d\,x])}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{1}{d}315\,\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\right.$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)+\frac{1}{d}441\,\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}$$

$$\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)-\frac{1}{d}441\,\sqrt{2}$$

$$C\,e^{-i\,(2\,c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Csc}[c]\,\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{350\,A\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}-$$

$$\frac{350\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+$$

$$\frac{450\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{d}+\frac{1}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}\,\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left((1820\,A-2324\,B+2439\,C)\,\text{Cos}\left[\frac{1}{2}\,(c-d\,x)\right]+(700\,A-1204\,B+1089\,C)\,\text{Cos}\left[\frac{1}{2}\,(3\,c+d\,x)\right]+2\,(140\,A-56\,B+201\,C+\right.$$

$$\left.\left.2\,(140\,A-56\,B+201\,C)\,\text{Cos}[c+d\,x]+12\,(7\,B-2\,C)\,\text{Cos}[2\,(c+d\,x)]+30\,C\,\text{Cos}[3\,(c+d\,x)]\right)\,\text{Sin}[c]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{5/2}}{(a+a\,\text{Cos}[c+d\,x])^2},\,x,\,8,\,0\right\}$$

$$\frac{(7\,A-4\,B+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{(10\,A-5\,B+2\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d}-\frac{(7\,A-4\,B+C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a^2\,d}+$$

$$\frac{(10\,A-5\,B+2\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}-\frac{(A-B+C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^2}-\frac{(7\,A-4\,B+C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\sqrt{2}\;A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\sqrt{2}\;B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}2\sqrt{2}\;C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\;\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{40\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-$$

$$\frac{20\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{8\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{2\,(-7\,A+4\,B-C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(3\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(11\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-6\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{8\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]}{3\,d}+$$

$$\left.\frac{4\,(2\,A+10\,A\,\mathrm{Cos}[c]-5\,B\,\mathrm{Cos}[c]+2\,C\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^2},x,7,0\right\}$$

$$-\frac{(4\,A-B)\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,d}-$$

$$\frac{(5\,A-2\,B-C)\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d}+\frac{(4\,A-B)\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{a^2\,d}-$$

$$\frac{(A-B+C)\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(5\,A-2\,B-C)\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4\left(-\frac{1}{d}24\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\right.$$

$$\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)+$$

$$\frac{6\sqrt{2}\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$-\frac{20A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$

$$\frac{8B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+\frac{4C\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$

$$\frac{1}{2d}\left((29A-5B-C)\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(19A-7B+C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+31A\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-7B\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+\right.$$

$$C\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+5A\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]-2B\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]-C\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]+$$

$$\left.\left.12A\,\text{Cos}\left[\frac{1}{2}(3c+5dx)\right]-3B\,\text{Cos}\left[\frac{1}{2}(3c+5dx)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3\sqrt{\text{Sec}[c+dx]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}}{(a+a\,\text{Cos}[c+dx])^2},x,6,0\right\}$$

$$\frac{(A-C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2d}+$$

$$\frac{(2A+B+2C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\sqrt{\text{Sec}[c+dx]}}-\frac{(A-C)\,\text{Sin}[c+dx]}{ad(a+a\,\text{Cos}[c+dx])\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$

$$\left(\frac{6\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}-\right.$$

$$\frac{6\sqrt{2}\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$-\frac{1}{2d\sqrt{\text{Sec}[c+dx]}}\left((7A-B-5C)\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(2A+B-4C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+3(A-C)\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]\right)$$

$$\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3+\frac{8A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$

$$\left.\frac{4B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+\frac{8C\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^2\sqrt{\text{Sec}[c+dx]}},x,6,0\right\}$$

$$-\frac{(B-4C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2d}+$$

$$\frac{(A+2B-5C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{3/2}}+\frac{(A+2B-5C)\,\text{Sin}[c+dx]}{3ad(a+a\,\text{Cos}[c+dx])\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$

$$\left(-\frac{6\sqrt{2}\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+\right.$$

$$\frac{24\sqrt{2}\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$-\frac{1}{2d\sqrt{\text{Sec}[c+dx]}}\left(-(A+5(B-4C))\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(A-4B+16C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]-\right.$$

$$\left.3B\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+9C\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+3C\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]\right)\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3+$$

$$\frac{4A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+\frac{8B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}-$$

$$\left.\frac{20C\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{3/2}},x,7,0\right\}$$

$$-\frac{(A-4B+7C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2d}+$$

$$\frac{(2A-5B+10C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}}-\frac{(A-4B+7C)\,\text{Sin}[c+dx]}{3ad(a+a\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{3/2}}+\frac{(2A-5B+10C)\,\text{Sin}[c+dx]}{3a^2d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{3a^2(1+\text{Cos}[c+dx])^2}\text{Cos}\left[\frac{1}{2}(c+dx)\right]^4$$

$$\left(-\frac{6\sqrt{2}\,A\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}+\right.$$

$$\frac{24\sqrt{2}\,B\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$-$$

$$\frac{42\sqrt{2}\,C\,e^{-i(2c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\text{Csc}[c]\left(1+e^{2i(c+dx)}+\left(-1+e^{2ic}\right)\sqrt{1+e^{2i(c+dx)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2i(c+dx)}\right]\right)}{d}$$

$$+\frac{1}{2d\sqrt{\text{Sec}[c+dx]}}\left(2(5A-20B+36C)\,\text{Cos}\left[\frac{1}{2}(c-dx)\right]+(8A-32B+54C)\,\text{Cos}\left[\frac{1}{2}(3c+dx)\right]+\right.$$

$$6A\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-18B\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]+33C\,\text{Cos}\left[\frac{1}{2}(c+3dx)\right]-6B\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]+$$

$$\left.9C\,\text{Cos}\left[\frac{1}{2}(5c+3dx)\right]+C\,\text{Cos}\left[\frac{1}{2}(3c+5dx)\right]-C\,\text{Cos}\left[\frac{1}{2}(7c+5dx)\right]\right)\text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^3+$$

$$\frac{8A\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}-\frac{20B\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}+$$

$$\left.\frac{40C\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{5/2}},x,8,0\right\}$$

$$\frac{(20A-35B+56C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{5a^2d}-$$

$$\frac{5(A-2B+3C)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2d}-\frac{(A-B+C)\,\text{Sin}[c+dx]}{3d(a+a\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{7/2}}-$$

$$\frac{(A-2B+3C)\,\text{Sin}[c+dx]}{ad(a+a\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{5/2}}+\frac{(20A-35B+56C)\,\text{Sin}[c+dx]}{15a^2d\,\text{Sec}[c+dx]^{3/2}}-\frac{5(A-2B+3C)\,\text{Sin}[c+dx]}{3a^2d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}8\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}14\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}112\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{20\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{40\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-$$

$$\frac{20\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^2}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{(60\,A-100\,B+151\,C+20\,A\,\mathrm{Cos}[2\,c]-40\,B\,\mathrm{Cos}[2\,c]+73\,C\,\mathrm{Cos}[2\,c])\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{10\,d}+\right.$$

$$\frac{4\,(B-2\,C)\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[3\,d\,x]\,\mathrm{Sin}[3\,c]}{5\,d}-\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(7\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-10\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+13\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{2\,(20\,A-40\,B+73\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{5\,d}+$$

$$\left.\frac{4\,(B-2\,C)\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{3\,d}+\frac{2\,C\,\mathrm{Cos}[3\,c]\,\mathrm{Sin}[3\,d\,x]}{5\,d}+\frac{4\,(7\,A-10\,B+13\,C)\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}-\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},x,9,0\right\}$$

$$\frac{(119\,A-49\,B+9\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(33\,A-13\,B+3\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(119\,A-49\,B+9\,C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d}+$$

$$\frac{(33\,A-13\,B+3\,C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{6\,a^3\,d}-\frac{(A-B+C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{(2\,A-B)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(119\,A-49\,B+9\,C)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{44\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{52\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(-\frac{2\,(119\,A-49\,B+9\,C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(13\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-8\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+3\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}-$$

$$\frac{8\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(26\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-11\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+6\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(197\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-87\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+27\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{16\,A\,\mathrm{Sec}[c]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}[d\,x]}{3\,d}+\frac{4\,(4\,A+33\,A\,\mathrm{Cos}[c]-13\,B\,\mathrm{Cos}[c]+3\,C\,\mathrm{Cos}[c])\,\mathrm{Sec}[c]\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+$$

$$\left.\frac{4\,(13\,A-8\,B+3\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+a\,\mathrm{Cos}[c+d\,x])^3},x,8,0\right\}$$

$$-\frac{(49\,A-9\,B-C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}-$$

$$\frac{(13\,A-3\,B-C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}+\frac{(49\,A-9\,B-C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{10\,a^3\,d}-$$

$$\frac{(A-B+C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-\frac{(8\,A-3\,B-2\,C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2}-\frac{(13\,A-3\,B-C)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d} 294 \sqrt{2} A e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)+\right.$$

$$\frac{54 \sqrt{2} B e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)}{d}+$$

$$\frac{6 \sqrt{2} C e^{-i (2 c+d x)} \sqrt{\frac{e^{i (c+d x)}}{1+e^{2 i (c+d x)}}} \text{Csc}[c] \left(1+e^{2 i (c+d x)}+\left(-1+e^{2 i c}\right) \sqrt{1+e^{2 i (c+d x)}} \text{Hypergeometric2F1}\left[-\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, -e^{2 i (c+d x)}\right]\right)}{d}$$

$$-\frac{260 A \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{60 B \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{20 C \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{d}+$$

$$\frac{1}{8 d}\left(12 (107 A-17 B-3 C) \text{Cos}\left[\frac{1}{2}(c-d x)\right]+3 (307 A-67 B-3 C) \text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+1243 A \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]-\right.$$

$$213 B \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]-7 C \text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+374 A \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]-84 B \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]-$$

$$26 C \text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+670 A \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-120 B \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-10 C \text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+$$

$$65 A \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]-15 B \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]-5 C \text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+147 A \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-$$

$$\left.\left.27 B \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-3 C \text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]\right) \text{Csc}[c] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^5 \sqrt{\text{Sec}[c+d x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}}{(a+a \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$\frac{(9 A+B-C) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{10 a^3 d}+$$

$$\frac{(3 A+B+C) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{6 a^3 d}-\frac{(A-B+C) \text{Sin}[c+d x]}{5 d (a+a \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{(6 A-B-4 C) \text{Sin}[c+d x]}{15 a d (a+a \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}-\frac{(9 A+B-C) \text{Sin}[c+d x]}{10 a^2 d (a+a \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(-\frac{2\,(9\,A+B-C)\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(3\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+2\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-7\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\right.$$

$$\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(3\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{4\,(3\,A+B+C)\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}+$$

$$\left.\frac{4\,(3\,A+2\,B-7\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^3\sqrt{\mathrm{Sec}[c+d\,x]}},x,7,0\right\}$$

$$\frac{(A-B-9\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(A+B+3\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A-B+C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{(4\,A+B-6\,C)\,\mathrm{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{(A-B-9\,C)\,\mathrm{Sin}[c+d\,x]}{10\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}2\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$
$$\text{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$
$$\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}2\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]$$
$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$
$$\frac{1}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3}18\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\text{Csc}[c]$$
$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$
$$\frac{4\,A\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+$$
$$\frac{4\,B\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,d\,(a+a\,\text{Cos}[c+d\,x])^3}+$$
$$\frac{4\,C\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,(a+a\,\text{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\text{Cos}[c+d\,x])^3}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(-\frac{2\,(A-B-9\,C)\,\text{Cos}[d\,x]\,\text{Csc}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}\right]}{5\,d}+\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[\frac{d\,x}{2}\right]-9\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}-\right.$$
$$\frac{2\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}+$$
$$\frac{4\,\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(2\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-7\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+12\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+\frac{4\,(A+B-9\,C)\,\text{Tan}\left[\frac{c}{2}\right]}{3\,d}+$$
$$\left.\frac{4\,(2\,A-7\,B+12\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\text{Tan}\left[\frac{c}{2}\right]}{15\,d}-\frac{2\,(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\text{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}},x,7,0\right\}$$
$$-\frac{(A+9\,B-49\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{10\,a^3\,d}+$$
$$\frac{(A+3\,B-13\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{5\,d\,(a+a\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{5/2}}+$$
$$\frac{(2\,A+3\,B-8\,C)\,\text{Sin}[c+d\,x]}{15\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(A+3\,B-13\,C)\,\text{Sin}[c+d\,x]}{6\,a^2\,d\,(a+a\,\text{Cos}[c+d\,x])\sqrt{\text{Sec}[c+d\,x]}}$$

$$-\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}2\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}18\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{4\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{4\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{52\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(-\frac{2\,(-A-9\,B+39\,C+10\,C\,\mathrm{Cos}[2\,c])\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-\right.$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(7\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-12\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+17\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-9\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+23\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{16\,C\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{d}+$$

$$\left.\frac{4\,(A-9\,B+23\,C)\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}-\frac{4\,(7\,A-12\,B+17\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{5/2}},x,8,0\right\}$$

$$-\frac{(9\,A-49\,B+119\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{10\,a^3\,d}+$$

$$\frac{(3\,A-13\,B+33\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{6\,a^3\,d}-\frac{(A-B+C)\,\mathrm{Sin}[c+d\,x]}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{7/2}}+$$

$$\frac{(B-2\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{5/2}}-\frac{(9\,A-49\,B+119\,C)\,\mathrm{Sin}[c+d\,x]}{30\,a^2\,d\,(a+a\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{(3\,A-13\,B+33\,C)\,\mathrm{Sin}[c+d\,x]}{6\,a^3\,d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{15 a^3 (1+\text{Cos}[c+d x])^3} \text{Cos}\left[\frac{1}{2}(c+d x)\right]^6 \left(-\frac{1}{d}54\sqrt{2}\, A\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)+\frac{1}{d}294\sqrt{2}\, B\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)-\frac{1}{d}714\sqrt{2}\, C\, e^{-i(2c+d x)} \sqrt{\frac{e^{i(c+d x)}}{1+e^{2 i(c+d x)}}}\, \text{Csc}[c] \left(1+e^{2 i(c+d x)}+\left(-1+e^{2 i c}\right)\sqrt{1+e^{2 i(c+d x)}}\, \text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2 i(c+d x)}\right]\right)+\frac{1}{4 d\sqrt{\text{Sec}[c+d x]}} \left((156 A-806 B+1961 C)\text{Cos}\left[\frac{1}{2}(c-d x)\right]+(114 A-664 B+1609 C)\text{Cos}\left[\frac{1}{2}(3 c+d x)\right]+90 A\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]-470 B\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+1165 C\,\text{Cos}\left[\frac{1}{2}(c+3 d x)\right]+45 A\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]-265 B\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+620 C\,\text{Cos}\left[\frac{1}{2}(5 c+3 d x)\right]+27 A\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-117 B\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]+292 C\,\text{Cos}\left[\frac{1}{2}(3 c+5 d x)\right]-30 B\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+65 C\,\text{Cos}\left[\frac{1}{2}(7 c+5 d x)\right]+5 C\,\text{Cos}\left[\frac{1}{2}(5 c+7 d x)\right]-5 C\,\text{Cos}\left[\frac{1}{2}(9 c+7 d x)\right]\right) \text{Csc}[c]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5+\frac{60 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}-\frac{260 B\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}+\frac{660 C\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{(a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{7/2}}, x, 9, 0\right\}$$

$$\frac{7(7 A-17 B+33 C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{10 a^3 d}-\frac{(13 A-33 B+63 C)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{6 a^3 d}-\frac{(A-B+C)\,\text{Sin}[c+d x]}{5 d (a+a\,\text{Cos}[c+d x])^3\,\text{Sec}[c+d x]^{9/2}}-\frac{(2 A-7 B+12 C)\,\text{Sin}[c+d x]}{15 a d (a+a\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{7/2}}-\frac{(13 A-33 B+63 C)\,\text{Sin}[c+d x]}{10 a^2 d (a+a\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}}+\frac{7(7 A-17 B+33 C)\,\text{Sin}[c+d x]}{30 a^3 d\,\text{Sec}[c+d x]^{3/2}}-\frac{(13 A-33 B+63 C)\,\text{Sin}[c+d x]}{6 a^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}98\sqrt{2}\,A\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6$$

$$\mathrm{Csc}[c]\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}238\sqrt{2}\,B\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)+$$

$$\frac{1}{5\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}462\sqrt{2}\,C\,e^{-i\,(2\,c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\mathrm{Csc}[c]$$

$$\left(1+e^{2\,i\,(c+d\,x)}+\left(-1+e^{2\,i\,c}\right)\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\mathrm{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2\,i\,(c+d\,x)}\right]\right)-$$

$$\frac{52\,A\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+$$

$$\frac{44\,B\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}-$$

$$\frac{84\,C\,\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,(a+a\,\mathrm{Cos}[c+d\,x])^3}+\frac{1}{(a+a\,\mathrm{Cos}[c+d\,x])^3}$$

$$\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^6\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{(78\,A-178\,B+329\,C+20\,A\,\mathrm{Cos}[2\,c]-60\,B\,\mathrm{Cos}[2\,c]+133\,C\,\mathrm{Cos}[2\,c])\,\mathrm{Cos}[d\,x]\,\mathrm{Csc}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}\right]}{5\,d}+\right.$$

$$\frac{8\,(B-3\,C)\,\mathrm{Cos}[2\,d\,x]\,\mathrm{Sin}[2\,c]}{3\,d}+\frac{4\,C\,\mathrm{Cos}[3\,d\,x]\,\mathrm{Sin}[3\,c]}{5\,d}+\frac{2\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{5\,d}-$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(17\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-22\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+27\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{15\,d}+$$

$$\frac{4\,\mathrm{Sec}\left[\frac{c}{2}\right]\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(23\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-43\,B\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+69\,C\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]\right)}{3\,d}+\frac{4\,(20\,A-60\,B+133\,C)\,\mathrm{Cos}[c]\,\mathrm{Sin}[d\,x]}{5\,d}+$$

$$\frac{8\,(B-3\,C)\,\mathrm{Cos}[2\,c]\,\mathrm{Sin}[2\,d\,x]}{3\,d}+\frac{4\,C\,\mathrm{Cos}[3\,c]\,\mathrm{Sin}[3\,d\,x]}{5\,d}+\frac{4\,(23\,A-43\,B+69\,C)\,\mathrm{Tan}\left[\frac{c}{2}\right]}{3\,d}-$$

$$\left.\frac{4\,(17\,A-22\,B+27\,C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\mathrm{Tan}\left[\frac{c}{2}\right]}{15\,d}+\frac{2\,(A-B+C)\,\mathrm{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\mathrm{Tan}\left[\frac{c}{2}\right]}{5\,d}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2},\,x,\,4,\,0\right\}$$

$$\frac{2\sqrt{a}\,C\,\mathrm{ArcTan}\left[\frac{\sqrt{a}\,\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}\right]\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d}+$$

$$\frac{2\,a\,(A+3\,B)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{6\,d\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,i\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]^{3/2}\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$
$$\Bigg(6\,C\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\,\right]\,\text{Cos}[c+d\,x]^2-3\,C\,\text{Cos}[2\,(c+d\,x)]$$
$$\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-\left(\text{Cos}\left[\frac{d\,x}{2}\right]-i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)$$
$$\Bigg(3\,C\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+$$
$$i\,\Bigg(3\,C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]+$$
$$4\,\sqrt{2}\;(A+(2\,A+3\,B)\,\text{Cos}[c+d\,x])\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{3/2},\;x,\;4,\;0\right\}$$

$$\frac{\sqrt{a}\;(2\,B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{d}-$$
$$\frac{a\,(2\,A-C)\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[c+d\,x]}{d}$$
$$\frac{1}{4\,d\,\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}}\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Sec}[c+d\,x]}$$
$$\Bigg(-i\,(2\,B+C)\,\text{Cos}\left[c+\frac{d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-$$
$$2\,i\,B\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]-$$
$$i\,C\,\text{Cos}\left[c+\frac{3\,d\,x}{2}\right]\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]+2\,i\,(2\,B+C)$$
$$\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\,\right]\,\text{Cos}[c+d\,x]\,\left(\text{Cos}\left[\frac{d\,x}{2}\right]+i\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)-$$
$$2\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]-$$
$$C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{d\,x}{2}\right]+$$
$$8\,\sqrt{2}\;A\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\sqrt{2}\;C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}$$
$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\sqrt{2}\;C\,\sqrt{\text{Cos}[c+d\,x]\,(\text{Cos}[d\,x]+i\,\text{Sin}[d\,x])}\;\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+$$
$$2\,B\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]+$$
$$C\,\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\,\text{Cos}[c]+i\,\left(-1+e^{2\,i\,d\,x}\right)\,\text{Sin}[c]}\right)\right]\,\text{Sin}\left[c+\frac{3\,d\,x}{2}\right]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\;x,\;5,\;0\right\}$$

$$\frac{\sqrt{a}\,(8A+6B+5C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{8d}+$$

$$\frac{a\,(6B+C)\,\text{Sin}[c+dx]}{12d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{C\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3d\,\text{Sec}[c+dx]^{3/2}}+\frac{a\,(8A+6B+5C)\,\text{Sin}[c+dx]}{8d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{16}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]\sqrt{\text{Sec}[c+dx]}$$

$$\left(\frac{1}{2d}i\,(8A+6B+5C)\,e^{-\frac{1}{2}idx}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]-\right.\right.$$

$$\left.\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\right)$$

$$\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}+$$

$$\left.\frac{(24A+18B+19C+2\,(6B+5C)\,\text{Cos}[c+dx]+4C\,\text{Cos}[2\,(c+dx)])\left(-\text{Sin}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{3}{2}(c+dx)\right]\right)}{3d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+a\,\text{Cos}[c+dx]}\,\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)}{\text{Sec}[c+dx]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{\sqrt{a}\,(48A+40B+35C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{64d}+\frac{a\,(8B+C)\,\text{Sin}[c+dx]}{24d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}}+$$

$$\frac{C\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d\,\text{Sec}[c+dx]^{5/2}}+\frac{a\,(48A+40B+35C)\,\text{Sin}[c+dx]}{96d\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{a\,(48A+40B+35C)\,\text{Sin}[c+dx]}{64d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{128}\sqrt{a\,(1+\text{Cos}[c+dx])}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]\sqrt{\text{Sec}[c+dx]}$$

$$\left(\frac{1}{2d}i\,(48A+40B+35C)\,e^{-\frac{1}{2}idx}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right]-\right.\right.$$

$$\left.\text{Log}\left[2\left(e^{idx}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{idx}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}\right)\right]\right)$$

$$\sqrt{\left(1+e^{2idx}\right)\text{Cos}[c]+i\left(-1+e^{2idx}\right)\text{Sin}[c]}+\frac{1}{3d}(144A+152B+133C+2\,(48A+40B+53C)\,\text{Cos}[c+dx]+$$

$$\left.\left.4\,(8B+7C)\,\text{Cos}[2\,(c+dx)]+12C\,\text{Cos}[3\,(c+dx)])\left(-\text{Sin}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{3}{2}(c+dx)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+dx])^{3/2}\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]},\ x,\ 5,\ 0\right\}$$

$$\frac{a^{3/2}\,(24A+14B+11C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{8d}+$$

$$\frac{a^2\,(24A+30B+19C)\,\text{Sin}[c+dx]}{24d\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}+\frac{a\,(2B+C)\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d\sqrt{\text{Sec}[c+dx]}}+\frac{C\,(a+a\,\text{Cos}[c+dx])^{3/2}\,\text{Sin}[c+dx]}{3d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{32}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\sqrt{\text{Sec}[c+d\,x]}\left(\frac{1}{2\,d}i\,(24\,A+14\,B+11\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{(24\,A+42\,B+37\,C+2\,(6\,B+11\,C)\,\text{Cos}[c+d\,x]+4\,C\,\text{Cos}[2\,(c+d\,x)])\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)}{3\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{3/2}\,(112\,A+88\,B+75\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,d}+\frac{a^2\,(48\,A+56\,B+39\,C)\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a\,(8\,B+3\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{C\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(112\,A+88\,B+75\,C)\,\text{Sin}[c+d\,x]}{64\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{256}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\sqrt{\text{Sec}[c+d\,x]}\left(\frac{1}{2\,d}i\,(112\,A+88\,B+75\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{3\,d}(336\,A+296\,B+285\,C+2\,(48\,A+88\,B+93\,C)\,\text{Cos}[c+d\,x]+4\,(8\,B+15\,C)\,\text{Cos}[2\,(c+d\,x)]+12\,C\,\text{Cos}[3\,(c+d\,x)])\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+a\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{a^{3/2}\,(176\,A+150\,B+133\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{128\,d}+\frac{a^2\,(80\,A+90\,B+67\,C)\,\text{Sin}[c+d\,x]}{240\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{a\,(10\,B+3\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{40\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{C\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{a^2\,(176\,A+150\,B+133\,C)\,\text{Sin}[c+d\,x]}{192\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(176\,A+150\,B+133\,C)\,\text{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{512}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{3/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^3\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}\,i\,(176\,A+150\,B+133\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{15\,d}$$
$$(2960\,A+2850\,B+2671\,C+2\,(880\,A+930\,B+1007\,C)\,\text{Cos}[c+d\,x]+4\,(80\,A+150\,B+181\,C)\,\text{Cos}[2\,(c+d\,x)]+$$
$$\left.120\,B\,\text{Cos}[3\,(c+d\,x)]+228\,C\,\text{Cos}[3\,(c+d\,x)]+48\,C\,\text{Cos}[4\,(c+d\,x)]\right)\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{9/2},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,a^{5/2}\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{d}+$$
$$\frac{2\,a^3\,(160\,A+224\,B+245\,C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{105\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}+\frac{2\,a^2\,(40\,A+56\,B+35\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$
$$\frac{2\,a\,(5\,A+7\,B)\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}$$

$$\frac{1}{4} C \sqrt{\text{Cos}[c+d x]}\ (a\,(1+\text{Cos}[c+d x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^5 \sqrt{\text{Sec}[c+d x]}\ \left(\frac{1}{2} i\,\text{Sin}\left[\frac{c}{2}\right]\right.$$
$$\left(-\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\left(\text{Cos}\left[\frac{c}{2}\right]-i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.\right.$$
$$\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)-$$
$$\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\right.$$
$$\left.\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/$$
$$\left.\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right)+\frac{1}{2}\text{Cos}\left[\frac{c}{2}\right]$$
$$\left(-\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{Log}\left[2\left(e^{i d x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i d x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right]\left(\text{Cos}\left[\frac{c}{2}\right]-i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.\right.$$
$$\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)+$$
$$\left(i\sqrt{2}\ e^{\frac{i d x}{2}}\,\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right]\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\right.$$
$$\left.\left.\sqrt{e^{-i d x}\left(\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]\right)}\right)\Big/\left(d\sqrt{\left(1+e^{2 i d x}\right)\text{Cos}[c]+i\left(-1+e^{2 i d x}\right)\text{Sin}[c]}\right)\right)\right)+$$

$$(a\,(1+\text{Cos}[c+d x]))^{5/2}\,\text{Sec}\left[\frac{c}{2}+\frac{d x}{2}\right]^5\sqrt{\text{Sec}[c+d x]}\ \left(\frac{(230 A+301 B+280 C)\,\text{Cos}\left[\frac{d x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{210 d}+\right.$$
$$\frac{(230 A+301 B+280 C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d x}{2}\right]}{210 d}+$$
$$\frac{A\,\text{Sec}[c+d x]^3\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]}{14 d}+$$
$$\frac{\text{Sec}[c+d x]^2\left(20 A\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+7 B\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)}{70 d}+$$
$$\left.\frac{\text{Sec}[c+d x]\left(115 A\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+98 B\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]+35 C\,\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right)}{210 d}\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d x])^{5/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{7/2},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}(2 B+5 C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\sqrt{a+a\,\text{Cos}[c+d x]}}\right]\sqrt{\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}{d}-$$
$$\frac{a^3(64 A+70 B+15 C)\,\text{Sin}[c+d x]}{15 d\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}+\frac{2 a^2(8 A+10 B+5 C)\sqrt{a+a\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{5 d}+$$
$$\frac{2 a(A+B)(a+a\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 d}+\frac{2 A(a+a\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5 d}$$

$$\frac{1}{8}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}i\,(2\,B+5\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{30\,d}\left(196\,A+160\,B+60\,C+(112\,A+40\,B+45\,C)\,\text{Cos}[c+d\,x]+\right.$$
$$\left.\left.4\,(43\,A+40\,B+15\,C)\,\text{Cos}[2\,(c+d\,x)]+15\,C\,\text{Cos}[3\,(c+d\,x)]\right)\text{Sec}[c+d\,x]^2\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{5/2},\ x,\ 6,\ 0\right\}$$
$$\frac{a^{5/2}\,(8\,A+20\,B+19\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{4\,d}-$$
$$\frac{a^3\,(56\,A+12\,B-27\,C)\,\text{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{a^2\,(8\,A+4\,B-C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$
$$\frac{2\,a\,(5\,A+3\,B)\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}$$

$$\frac{1}{32}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}i\,(8\,A+20\,B+19\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{3\,d}\left(16\,A+12\,B+33\,C+(128\,A+48\,B+9\,C)\,\text{Cos}[c+d\,x]+\right.$$
$$\left.\left.3\,(4\,B+11\,C)\,\text{Cos}[2\,(c+d\,x)]+3\,C\,\text{Cos}[3\,(c+d\,x)]\right)\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{(a+a\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2},\ x,\ 6,\ 0\right\}$$
$$\frac{a^{5/2}\,(40\,A+38\,B+25\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{8\,d}-$$
$$\frac{a^3\,(24\,A-54\,B-49\,C)\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{a^2\,(8\,A-2\,B-3\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}-$$
$$\frac{a\,(6\,A-C)\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}$$

$$\frac{1}{64}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}\,i\,(40\,A+38\,B+25\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+$$
$$\left.\frac{2\,(48\,A+6\,B+17\,C+3\,(8\,A+22\,B+27\,C)\,\text{Cos}[c+d\,x]+(6\,B+17\,C)\,\text{Cos}[2\,(c+d\,x)]+2\,C\,\text{Cos}[3\,(c+d\,x)])\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{3\,d}\right)$$

Incorrect antiderivative:

$$\left\{\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$\frac{a^{5/2}\,(304\,A+200\,B+163\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{64\,d}+$$
$$\frac{a^3\,(432\,A+392\,B+299\,C)\,\text{Sin}[c+d\,x]}{192\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{a^2\,(16\,A+24\,B+17\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{32\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$
$$\frac{a\,(8\,B+5\,C)\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{3/2}\text{Sin}[c+d\,x]}{24\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{C\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{512}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}\,i\,(304\,A+200\,B+163\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{3\,d}\left(528\,A+632\,B+581\,C+(96\,A+272\,B+362\,C)\,\text{Cos}[c+d\,x]+\right.$$
$$\left.\left.4\,(8\,B+23\,C)\,\text{Cos}[2\,(c+d\,x)]+12\,C\,\text{Cos}[3\,(c+d\,x)]\right)\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 7,\ 0\right\}$$

$$\frac{a^{5/2}\,(400\,A+326\,B+283\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{128\,d}+$$
$$\frac{a^3\,(1040\,A+950\,B+787\,C)\,\text{Sin}[c+d\,x]}{960\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^2\,(80\,A+110\,B+79\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$
$$\frac{a\,(2\,B+C)\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{3/2}\text{Sin}[c+d\,x]}{8\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{C\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^3\,(400\,A+326\,B+283\,C)\,\text{Sin}[c+d\,x]}{128\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{1024}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}\,i\,(400\,A+326\,B+283\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+\frac{1}{15\,d}$$
$$\left(6320\,A+5810\,B+5521\,C+(2720\,A+3620\,B+3874\,C)\,\text{Cos}[c+d\,x]+4\,(80\,A+230\,B+331\,C)\,\text{Cos}[2\,(c+d\,x)]+\right.$$
$$\left.\left.120\,B\,\text{Cos}[3\,(c+d\,x)]+348\,C\,\text{Cos}[3\,(c+d\,x)]+48\,C\,\text{Cos}[4\,(c+d\,x)]\right)\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Sec}[c+d\,x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{a^{5/2}\,(1304\,A+1132\,B+1015\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{512\,d}+$$
$$\frac{a^3\,(680\,A+628\,B+545\,C)\,\text{Sin}[c+d\,x]}{960\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{a^2\,(120\,A+156\,B+115\,C)\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{480\,d\,\text{Sec}[c+d\,x]^{5/2}}+$$
$$\frac{a\,(12\,B+5\,C)\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{3/2}\text{Sin}[c+d\,x]}{60\,d\,\text{Sec}[c+d\,x]^{5/2}}+\frac{C\,\left(a+a\,\text{Cos}[c+d\,x]\right)^{5/2}\text{Sin}[c+d\,x]}{6\,d\,\text{Sec}[c+d\,x]^{5/2}}+$$
$$\frac{a^3\,(1304\,A+1132\,B+1015\,C)\,\text{Sin}[c+d\,x]}{768\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a^3\,(1304\,A+1132\,B+1015\,C)\,\text{Sin}[c+d\,x]}{512\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4096}\left(a\left(1+\text{Cos}[c+d\,x]\right)\right)^{5/2}\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^5\sqrt{\text{Sec}[c+d\,x]}$$
$$\left(\frac{1}{2\,d}\,i\,(1304\,A+1132\,B+1015\,C)\,e^{-\frac{1}{2}i\,d\,x}\left(\text{ArcTanh}\left[\left(\text{Cos}\left[\frac{c}{2}\right]+i\,\text{Sin}\left[\frac{c}{2}\right]\right)\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right]-\right.\right.$$
$$\left.\text{Log}\left[2\left(e^{i\,d\,x}\,\text{Cos}\left[\frac{c}{2}\right]+i\,e^{i\,d\,x}\,\text{Sin}\left[\frac{c}{2}\right]+\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}\right)\right]\right)$$
$$\sqrt{\left(1+e^{2\,i\,d\,x}\right)\text{Cos}[c]+i\left(-1+e^{2\,i\,d\,x}\right)\text{Sin}[c]}+$$
$$\frac{1}{15\,d}\left(23\,240\,A+22\,084\,B+20\,965\,C+2\,(7240\,A+7748\,B+8085\,C)\,\text{Cos}[c+d\,x]+4\,(920\,A+1324\,B+1575\,C)\,\text{Cos}[2\,(c+d\,x)]+\right.$$
$$480\,A\,\text{Cos}[3\,(c+d\,x)]+1392\,B\,\text{Cos}[3\,(c+d\,x)]+2140\,C\,\text{Cos}[3\,(c+d\,x)]+192\,B\,\text{Cos}[4\,(c+d\,x)]+$$
$$\left.\left.560\,C\,\text{Cos}[4\,(c+d\,x)]+80\,C\,\text{Cos}[5\,(c+d\,x)]\right)\left(-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2}}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\,d}-$$
$$\frac{\sqrt{2}\,(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\,d}+\frac{2\,A\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,e^{-i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)\left(2\,i\,A-2\,i\,A\,e^{i\,(c+d\,x)}+C\,d\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;x-i\,C\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.$$
$$i\,\sqrt{2}\;(A-B+C)\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[\sqrt{2}\;\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,C\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$i\,\sqrt{2}\;C\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$i\,\sqrt{2}\;A\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$\left.i\,\sqrt{2}\;B\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\;x,\;5,\;0\right\}$$

$$\frac{(2\,B-C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\;d}+$$
$$\frac{\sqrt{2}\;(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\;d}+\frac{C\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,e^{-2\,i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)$$
$$\left(i\,C-i\,C\,e^{i\,(c+d\,x)}+i\,C\,e^{2\,i\,(c+d\,x)}-i\,C\,e^{3\,i\,(c+d\,x)}+2\,B\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;x-C\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;x-\right.$$
$$i\,(2\,B-C)\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-2\,i\,\sqrt{2}\;(A-B+C)\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[\sqrt{2}\;\left(1+e^{i\,(c+d\,x)}\right)\right]+$$
$$2\,i\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,C\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$2\,i\,\sqrt{2}\;B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+i\,\sqrt{2}\;C\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}$$
$$\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+2\,i\,\sqrt{2}\;A\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$\left.i\,\sqrt{2}\;C\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\;\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\;\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}},\;x,\;6,\;0\right\}$$

$$\frac{(8\,A-4\,B+7\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{4\,\sqrt{a}\;d}-$$
$$\frac{\sqrt{2}\;(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\;\text{Sin}[c+d\,x]}{\sqrt{2}\;\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\;d}+$$
$$\frac{C\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}}+\frac{(4\,B-C)\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{16\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}$$

$$e^{-3\,i\,(c+d\,x)}\left(1+e^{i\,(c+d\,x)}\right)\Big(i\,C+4\,i\,B\,e^{i\,(c+d\,x)}-2\,i\,C\,e^{i\,(c+d\,x)}-4\,i\,B\,e^{2\,i\,(c+d\,x)}+3\,i\,C\,e^{2\,i\,(c+d\,x)}+4\,i\,B\,e^{3\,i\,(c+d\,x)}-3\,i\,C\,e^{3\,i\,(c+d\,x)}-$$
$$4\,i\,B\,e^{4\,i\,(c+d\,x)}+2\,i\,C\,e^{4\,i\,(c+d\,x)}-i\,C\,e^{5\,i\,(c+d\,x)}+8\,A\,d\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-4\,B\,d\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+$$
$$7\,C\,d\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-i\,(8\,A-4\,B+7\,C)\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+8\,i\,\sqrt{2}\,(A-B+C)$$
$$e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+8\,i\,A\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$4\,i\,B\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+7\,i\,C\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$8\,i\,\sqrt{2}\,A\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$4\,i\,\sqrt{2}\,B\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$7\,i\,\sqrt{2}\,C\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$4\,i\,\sqrt{2}\,B\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$i\,\sqrt{2}\,C\,e^{2\,i\,(c+d\,x)}\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Big)\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{(8\,A-14\,B+9\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{8\,\sqrt{a}\,d}+$$
$$\frac{\sqrt{2}\,(A-B+C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\,d}+$$
$$\frac{C\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{(6\,B-C)\,\text{Sin}[c+d\,x]}{12\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(8\,A-2\,B+7\,C)\,\text{Sin}[c+d\,x]}{8\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{96\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,e^{-4\,i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)$$

$$\Big(2\,i\,C+6\,i\,B\,e^{i\,(c+d\,x)}-3\,i\,C\,e^{i\,(c+d\,x)}+24\,i\,A\,e^{2\,i\,(c+d\,x)}-12\,i\,B\,e^{2\,i\,(c+d\,x)}+28\,i\,C\,e^{2\,i\,(c+d\,x)}-24\,i\,A\,e^{3\,i\,(c+d\,x)}+18\,i\,B\,e^{3\,i\,(c+d\,x)}-$$
$$29\,i\,C\,e^{3\,i\,(c+d\,x)}+24\,i\,A\,e^{4\,i\,(c+d\,x)}-18\,i\,B\,e^{4\,i\,(c+d\,x)}+29\,i\,C\,e^{4\,i\,(c+d\,x)}-24\,i\,A\,e^{5\,i\,(c+d\,x)}+12\,i\,B\,e^{5\,i\,(c+d\,x)}-28\,i\,C\,e^{5\,i\,(c+d\,x)}-$$
$$6\,i\,B\,e^{6\,i\,(c+d\,x)}+3\,i\,C\,e^{6\,i\,(c+d\,x)}-2\,i\,C\,e^{7\,i\,(c+d\,x)}-24\,A\,d\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+42\,B\,d\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-$$
$$27\,C\,d\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+3\,i\,(8\,A-14\,B+9\,C)\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-48\,i\,\sqrt{2}\,(A-B+C)$$
$$e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-24\,i\,A\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$42\,i\,B\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-27\,i\,C\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$24\,i\,\sqrt{2}\,A\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$42\,i\,\sqrt{2}\,B\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$27\,i\,\sqrt{2}\,C\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$24\,i\,\sqrt{2}\,A\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$6\,i\,\sqrt{2}\,B\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$21\,i\,\sqrt{2}\,C\,e^{3\,i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Big)\,\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{\left(a\,A+(A\,b+a\,B)\,\text{Cos}[c+d\,x]+b\,B\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+a\,\text{Cos}[c+d\,x]}},\ x,\ 5,\ 0\right\}$$

$$\frac{(2\,A\,b+2\,a\,B-b\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\,d}+$$

$$\frac{\sqrt{2}\,(a\,A-A\,b-a\,B+b\,B)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a}\,d}+$$

$$\frac{b\,B\,\text{Sin}[c+d\,x]}{d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,d\,\sqrt{a\,(1+\text{Cos}[c+d\,x])}}\,e^{-2\,i\,(c+d\,x)}\,\left(1+e^{i\,(c+d\,x)}\right)$$

$$\Big(i\,b\,B-i\,b\,B\,e^{i\,(c+d\,x)}+i\,b\,B\,e^{2\,i\,(c+d\,x)}-i\,b\,B\,e^{3\,i\,(c+d\,x)}+2\,A\,b\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x+2\,a\,B\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-$$
$$b\,B\,d\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,x-i\,(2\,A\,b+2\,a\,B-b\,B)\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]-2\,i\,\sqrt{2}\,(a-b)\,(A-B)$$
$$e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,A\,b\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$2\,i\,a\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$2\,i\,\sqrt{2}\,A\,b\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-$$
$$2\,i\,\sqrt{2}\,a\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$i\,\sqrt{2}\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$2\,i\,\sqrt{2}\,a\,A\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$
$$i\,\sqrt{2}\,b\,B\,e^{i\,(c+d\,x)}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\Big)\,\sqrt{\text{Sec}[c+d\,x]}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{3/2}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,4,\,0\right\}$$

$$-\frac{(7\,A-3\,B-C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-$$
$$\frac{(A-B+C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(5\,A-B+C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$
$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3$$
$$\left(\frac{i\,(7\,A-3\,B-C)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d}+\right.$$
$$\left.\frac{(4\,A+(5\,A-B+C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,5,\,0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{3/2}\,d}+$$
$$\frac{(3\,A+B-5\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$e^{-\frac{1}{2}i\,(c+d\,x)}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(-2\,i\,\sqrt{2}\,C\,\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\right.$$

$$\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(2\,\sqrt{2}\,C\,d\,x-i\,(3\,A+B-5\,C)\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+2\,i\,\sqrt{2}\,C\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$

$$4\,i\,C\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+3\,i\,A\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]+$$

$$\left.\left.i\,B\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,C\,\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{1}{2}\,(A-B+C)\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{(2\,B-3\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{3/2}\,d}+$$

$$\frac{(A-5\,B+9\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\,\sqrt{2}\,a^{3/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(A-B+3\,C)\,\text{Sin}[c+d\,x]}{2\,a\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$2\sqrt{2}\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}3\sqrt{2}\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-$$

$$\frac{i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}-$$

$$\frac{3\,i\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(\frac{2\,(A-B)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(-A\,\text{Sin}\left[\frac{c}{2}\right]+B\,\text{Sin}\left[\frac{c}{2}\right]-C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{d}+\frac{2\,C\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}+\right.$$

$$\left.\frac{2\,(A-B)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(-A\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[\frac{d\,x}{2}\right]-C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{2\,C\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(8\,A-12\,B+19\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{4\,a^{3/2}\,d}-$$

$$\frac{(5\,A-9\,B+13\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{2\sqrt{2}\,a^{3/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{2\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}}+\frac{(A-B+2\,C)\,\text{Sin}[c+d\,x]}{2\,a\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}}-\frac{(2\,A-6\,B+7\,C)\,\text{Sin}[c+d\,x]}{4\,a\,d\sqrt{a+a\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$2\sqrt{2}\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}3\sqrt{2}\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3$$

$$\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{1}{2\sqrt{2}\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$19\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}-$$

$$\frac{3\,i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{7\,i\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{2\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}+$$

$$\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{3/2}}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\sqrt{\text{Sec}[c+d\,x]}\left(\frac{(-4\,A+3\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{2\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\left(A\,\text{Sin}\left[\frac{c}{2}\right]-B\,\text{Sin}\left[\frac{c}{2}\right]+C\,\text{Sin}\left[\frac{c}{2}\right]\right)}{d}+\right.$$

$$\frac{(2\,B-3\,C)\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}+\frac{C\,\text{Cos}\left[\frac{5\,d\,x}{2}\right]\text{Sin}\left[\frac{5\,c}{2}\right]}{2\,d}+\frac{(-4\,A+3\,C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+$$

$$\left.\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(A\,\text{Sin}\left[\frac{d\,x}{2}\right]-B\,\text{Sin}\left[\frac{d\,x}{2}\right]+C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{d}+\frac{(2\,B-3\,C)\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}+\frac{C\,\text{Cos}\left[\frac{5\,c}{2}\right]\text{Sin}\left[\frac{5\,d\,x}{2}\right]}{2\,d}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{7/2}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{(283\,A-163\,B+75\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}+$$

$$\frac{(2671\,A-1495\,B+735\,C)\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(787\,A-475\,B+195\,C)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{240\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}-\frac{(A-B+C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}}-$$

$$\frac{(21\,A-13\,B+5\,C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}}+\frac{(157\,A-85\,B+45\,C)\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{80\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(\frac{1}{d}\,i\,(283\,A-163\,B+75\,C)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\right.$$

$$\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{1}{240\,d}\,(15\,053\,A-7685\,B+4125\,C+10\,(2605\,A-1381\,B+765\,C)\,\text{Cos}[c+d\,x]+108\,(157\,A-85\,B+45\,C)\,\text{Cos}[2\,(c+d\,x)]+$$

$$9110\,A\,\text{Cos}[3\,(c+d\,x)]-5030\,B\,\text{Cos}[3\,(c+d\,x)]+2550\,C\,\text{Cos}[3\,(c+d\,x)]+2671\,A\,\text{Cos}[4\,(c+d\,x)]-$$

$$\left.1495\,B\,\text{Cos}[4\,(c+d\,x)]+735\,C\,\text{Cos}[4\,(c+d\,x)])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\text{Sec}[c+d\,x]^{5/2}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}}{(a+a\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{(19\,A+5\,B+3\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{(9\,A-B-7\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^5\left(-\frac{1}{d}\,i\,(19\,A+5\,B+3\,C)\,e^{-\frac{1}{2}\,i\,(c+d\,x)}\right.$$

$$\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\left.\frac{(13\,A-5\,B-3\,C+(9\,A-B-7\,C)\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\sqrt{\text{Sec}[c+d\,x]}\,\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)}{4\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,C\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{a^{5/2}\,d}+$$

$$\frac{(5\,A+3\,B-43\,C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+d\,x]}{\sqrt{2}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+a\,\text{Cos}[c+d\,x]}}\right]\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}{16\,\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+d\,x]}{4\,d\,(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}}+\frac{(5\,A+3\,B-11\,C)\,\text{Sin}[c+d\,x]}{16\,a\,d\,(a+a\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\frac{4\,\sqrt{2}\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\,\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\,\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\,\sqrt{2}\,\text{Log}\left[-d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}-$$

$$\frac{5\,i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}-$$

$$\frac{3\,i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}+$$

$$\frac{11\,i\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\,\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\sqrt{\text{Sec}[c+d\,x]}\left(\frac{(A+7\,B-15\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\,\text{Sin}\left[\frac{c}{2}\right]}{2\,d}+\right.$$

$$\frac{(A+7\,B-15\,C)\,\text{Cos}\left[\frac{c}{2}\right]\,\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-A\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[\frac{d\,x}{2}\right]-C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{2\,d}+$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(3\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-11\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+19\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{4\,d}+$$

$$\left.\frac{(3\,A-11\,B+19\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\,\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\,\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+a\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{(2B-5C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{a^{5/2}\,d}+$$

$$\frac{(3A-43B+115C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{16\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+dx]}{4\,d\,(a+a\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{5/2}}+$$

$$\frac{(A+7B-15C)\,\text{Sin}[c+dx]}{16\,a\,d\,(a+a\,\text{Cos}[c+dx])^{3/2}\,\text{Sec}[c+dx]^{3/2}}+\frac{(3A-11B+35C)\,\text{Sin}[c+dx]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+dx]))^{5/2}}$$

$$4\sqrt{2}\,B\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(dx-i\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)-\frac{1}{d\,(a\,(1+\text{Cos}[c+dx]))^{5/2}}$$

$$10\sqrt{2}\,C\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(dx-i\,\text{ArcSinh}\left[e^{i(c+dx)}\right]+\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]+i\,\text{Log}\left[2d\left(1+\sqrt{1+e^{2i(c+dx)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)-$$

$$\frac{3\,i\,A\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]-\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+dx]))^{5/2}}+$$

$$\frac{11\,i\,B\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]-\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+dx]))^{5/2}}$$

$$-$$

$$\frac{35\,i\,C\,e^{-\frac{1}{2}i(c+dx)}\sqrt{\frac{e^{i(c+dx)}}{1+e^{2i(c+dx)}}}\,\sqrt{1+e^{2i(c+dx)}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i(c+dx)}\right)\right]-\text{Log}\left[2d\left(1-e^{i(c+dx)}+\sqrt{2}\,\sqrt{1+e^{2i(c+dx)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+dx]))^{5/2}}$$

$$+\frac{1}{(a\,(1+\text{Cos}[c+dx]))^{5/2}}\,\text{Cos}\left[\frac{c}{2}+\frac{dx}{2}\right]^5\sqrt{\text{Sec}[c+dx]}\left(\frac{(7A-15B+15C)\,\text{Cos}\left[\frac{dx}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{2d}+\frac{4\,C\,\text{Cos}\left[\frac{3dx}{2}\right]\text{Sin}\left[\frac{3c}{2}\right]}{d}+\right.$$

$$\frac{(7A-15B+15C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{dx}{2}\right]}{2d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^2\left(-11A\,\text{Sin}\left[\frac{dx}{2}\right]+19B\,\text{Sin}\left[\frac{dx}{2}\right]-27C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{4d}+$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^4\left(A\,\text{Sin}\left[\frac{dx}{2}\right]-B\,\text{Sin}\left[\frac{dx}{2}\right]+C\,\text{Sin}\left[\frac{dx}{2}\right]\right)}{2d}+\frac{4\,C\,\text{Cos}\left[\frac{3c}{2}\right]\text{Sin}\left[\frac{3dx}{2}\right]}{d}-$$

$$\left.\frac{(11A-19B+27C)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]\text{Tan}\left[\frac{c}{2}\right]}{4d}+\frac{(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{dx}{2}\right]^3\text{Tan}\left[\frac{c}{2}\right]}{2d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{(a+a\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{5/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{(8A-20B+39C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{4\,a^{5/2}\,d}-$$

$$\frac{(43A-115B+219C)\,\text{ArcTan}\left[\frac{\sqrt{a}\,\text{Sin}[c+dx]}{\sqrt{2}\,\sqrt{\text{Cos}[c+dx]}\,\sqrt{a+a\,\text{Cos}[c+dx]}}\right]\sqrt{\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}{16\sqrt{2}\,a^{5/2}\,d}-$$

$$\frac{(A-B+C)\,\text{Sin}[c+dx]}{4\,d\,(a+a\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{7/2}}-\frac{(3A-11B+19C)\,\text{Sin}[c+dx]}{16\,a\,d\,(a+a\,\text{Cos}[c+dx])^{3/2}\,\text{Sec}[c+dx]^{5/2}}+$$

$$\frac{(7A-15B+31C)\,\text{Sin}[c+dx]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}-\frac{(11A-35B+63C)\,\text{Sin}[c+dx]}{16\,a^2\,d\,\sqrt{a+a\,\text{Cos}[c+dx]}\,\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$4\sqrt{2}\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)-$$

$$\frac{1}{d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}10\sqrt{2}\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5$$

$$\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-\right.$$

$$\left.i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+\frac{1}{\sqrt{2}\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$39\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(d\,x-i\,\text{ArcSinh}\left[e^{i\,(c+d\,x)}\right]+i\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]+\right.$$

$$\left.i\,\text{Log}\left[2\,d\left(1+\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]-i\sqrt{2}\,\text{Log}\left[-d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)+$$

$$\frac{11\,i\,A\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$-$$

$$\frac{35\,i\,B\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+$$

$$\frac{63\,i\,C\,e^{-\frac{1}{2}i\,(c+d\,x)}\sqrt{\frac{e^{i\,(c+d\,x)}}{1+e^{2\,i\,(c+d\,x)}}}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\,\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\left(\text{Log}\left[\sqrt{2}\,\left(1+e^{i\,(c+d\,x)}\right)\right]-\text{Log}\left[2\,d\left(1-e^{i\,(c+d\,x)}+\sqrt{2}\,\sqrt{1+e^{2\,i\,(c+d\,x)}}\right)\right]\right)}{4\,d\,(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$+\frac{1}{(a\,(1+\text{Cos}[c+d\,x]))^{5/2}}$$

$$\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^5\sqrt{\text{Sec}[c+d\,x]}\left(\frac{3\,(-5\,A+5\,B-3\,C)\,\text{Cos}\left[\frac{d\,x}{2}\right]\text{Sin}\left[\frac{c}{2}\right]}{2\,d}+\frac{2\,(2\,B-5\,C)\,\text{Cos}\left[\frac{3\,d\,x}{2}\right]\text{Sin}\left[\frac{3\,c}{2}\right]}{d}+\frac{C\,\text{Cos}\left[\frac{5\,d\,x}{2}\right]\text{Sin}\left[\frac{5\,c}{2}\right]}{d}+\right.$$

$$\frac{3\,(-5\,A+5\,B-3\,C)\,\text{Cos}\left[\frac{c}{2}\right]\text{Sin}\left[\frac{d\,x}{2}\right]}{2\,d}+\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^4\left(-A\,\text{Sin}\left[\frac{d\,x}{2}\right]+B\,\text{Sin}\left[\frac{d\,x}{2}\right]-C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{2\,d}+$$

$$\frac{\text{Sec}\left[\frac{c}{2}\right]\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^2\left(19\,A\,\text{Sin}\left[\frac{d\,x}{2}\right]-27\,B\,\text{Sin}\left[\frac{d\,x}{2}\right]+35\,C\,\text{Sin}\left[\frac{d\,x}{2}\right]\right)}{4\,d}+\frac{2\,(2\,B-5\,C)\,\text{Cos}\left[\frac{3\,c}{2}\right]\text{Sin}\left[\frac{3\,d\,x}{2}\right]}{d}+$$

$$\left.\frac{C\,\text{Cos}\left[\frac{5\,c}{2}\right]\text{Sin}\left[\frac{5\,d\,x}{2}\right]}{d}+\frac{(19\,A-27\,B+35\,C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\text{Tan}\left[\frac{c}{2}\right]}{4\,d}-\frac{(A-B+C)\,\text{Sec}\left[\frac{c}{2}+\frac{d\,x}{2}\right]^3\text{Tan}\left[\frac{c}{2}\right]}{2\,d}\right)$$

Problems of the form $\mathbf{Cos[x]^m \left(A + B\,Cos[x] + C\,Cos[x]^2\right) (a + b\,Cos[x])^n}$ when $\mathbf{a^2 \neq b^2}$

Valid but unnecessarily complicated antiderivative:

$\{(a + b\,Cos[c + d\,x])^2\,Sec[c + d\,x],\ x,\ 3,\ 0\}$

$$2\,a\,b\,x + \frac{a^2\,ArcTanh[Sin[c + d\,x]]}{d} + \frac{b^2\,Sin[c + d\,x]}{d}$$

$$\frac{a\left(2\,b\,d\,x - a\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] - Sin\left[\frac{1}{2}(c + d\,x)\right]\right] + a\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] + Sin\left[\frac{1}{2}(c + d\,x)\right]\right]\right) + b^2\,Sin[c + d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a + b\,Cos[c + d\,x])^2\,Sec[c + d\,x]^2,\ x,\ 3,\ 0\}$

$$b^2\,x + \frac{2\,a\,b\,ArcTanh[Sin[c + d\,x]]}{d} + \frac{a^2\,Tan[c + d\,x]}{d}$$

$$\frac{b\left(b\,c + b\,d\,x - 2\,a\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] - Sin\left[\frac{1}{2}(c + d\,x)\right]\right] + 2\,a\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] + Sin\left[\frac{1}{2}(c + d\,x)\right]\right]\right) + a^2\,Tan[c + d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$\{(a + b\,Cos[c + d\,x])^2\,Sec[c + d\,x]^3,\ x,\ 4,\ 0\}$

$$\frac{\left(a^2 + 2\,b^2\right)ArcTanh[Sin[c + d\,x]]}{2\,d} + \frac{2\,a\,b\,Tan[c + d\,x]}{d} + \frac{a^2\,Sec[c + d\,x]\,Tan[c + d\,x]}{2\,d}$$

$$\frac{1}{4\,d}\left(-2\left(a^2 + 2\,b^2\right)Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] - Sin\left[\frac{1}{2}(c + d\,x)\right]\right] + 2\,a^2\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] + Sin\left[\frac{1}{2}(c + d\,x)\right]\right] + 4\,b^2\,Log\left[Cos\left[\frac{1}{2}(c + d\,x)\right] + Sin\left[\frac{1}{2}(c + d\,x)\right]\right] + \frac{a^2}{\left(Cos\left[\frac{1}{2}(c + d\,x)\right] - Sin\left[\frac{1}{2}(c + d\,x)\right]\right)^2} - \frac{a^2}{\left(Cos\left[\frac{1}{2}(c + d\,x)\right] + Sin\left[\frac{1}{2}(c + d\,x)\right]\right)^2} + 8\,a\,b\,Tan[c + d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$\{(a + b\,Cos[c + d\,x])^2\,Sec[c + d\,x]^5,\ x,\ 6,\ 0\}$

$$\frac{\left(3\,a^2 + 4\,b^2\right)ArcTanh[Sin[c + d\,x]]}{8\,d} + \frac{4\,a\,b\,Tan[c + d\,x]}{3\,d} + \frac{\left(3\,a^2 + 4\,b^2\right)Sec[c + d\,x]\,Tan[c + d\,x]}{8\,d} + \frac{2\,a\,b\,Sec[c + d\,x]^2\,Tan[c + d\,x]}{3\,d} + \frac{a^2\,Sec[c + d\,x]^3\,Tan[c + d\,x]}{4\,d}$$

$$-\frac{3 a^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}-\frac{b^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2 d}+\frac{3 a^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+\frac{b^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{2 d}+\frac{a^2}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{3 a^2}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{b^2}{4 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{a^2}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}-\frac{3 a^2}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{b^2}{4 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{4 a b \text{Tan}[c+d x]}{3 d}+\frac{2 a b \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^6, x, 7, 0\right\}$$

$$\frac{3 a b \text{ArcTanh}[\text{Sin}[c+d x]]}{4 d}+\frac{2\left(4 a^2+5 b^2\right) \text{Tan}[c+d x]}{15 d}+\frac{3 a b \text{Sec}[c+d x] \text{Tan}[c+d x]}{4 d}+\frac{\left(4 a^2+5 b^2\right) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{15 d}+\frac{a b \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{2 d}+\frac{a^2 \text{Sec}[c+d x]^4 \text{Tan}[c+d x]}{5 d}-\frac{3 a b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{4 d}+\frac{3 a b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{4 d}+\frac{a b}{8 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{3 a b}{8 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{a b}{8 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}-\frac{3 a b}{8 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{8 a^2 \text{Tan}[c+d x]}{15 d}+\frac{2 b^2 \text{Tan}[c+d x]}{3 d}+\frac{4 a^2 \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{15 d}+\frac{b^2 \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d}+\frac{a^2 \text{Sec}[c+d x]^4 \text{Tan}[c+d x]}{5 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^3, x, 4, 0\right\}$$

$$b^3 x+\frac{a\left(a^2+6 b^2\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 d}+\frac{5 a^2 b \text{Tan}[c+d x]}{2 d}+\frac{a^2 (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 d}$$

$$\frac{1}{4 d}\left(4 b^3 c+4 b^3 d x-2 a\left(a^2+6 b^2\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+2 a^3 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+12 a b^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+\frac{a^3}{\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{a^3}{\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+12 a^2 b \text{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$\frac{b\left(3a^2+2b^2\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{a\left(2a^2+9b^2\right)\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{7a^2\,b\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{12\,d}\left(-6\,b\left(3a^2+2b^2\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+18\,a^2\,b\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+12\,b^3\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\frac{a^3}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{9\,a^2\,b}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a^3}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{9\,a^2\,b}{\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+2\,a\left(4a^2+9b^2-a^2\,\mathrm{Cos}[c+d\,x]+\left(2a^2+9b^2\right)\mathrm{Cos}[2\,(c+d\,x)]\right)\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{3\,a\left(a^2+4b^2\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{b\left(2a^2+b^2\right)\mathrm{Tan}[c+d\,x]}{d}+\frac{3\,a\left(a^2+4b^2\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{3\,a^2\,b\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{4\,d}+\frac{a^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\left(a^3+4\,a\,b^2\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{3\left(a^3+4\,a\,b^2\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{a^3}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,a^3+4\,a^2\,b+12\,a\,b^2}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{a^2\,b\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{2\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}-\frac{a^3}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{a^2\,b\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{2\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^3}+\frac{-3\,a^3-4\,a^2\,b-12\,a\,b^2}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{2\,a^2\,b\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]+b^3\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}+\frac{2\,a^2\,b\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]+b^3\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\}$$

$$\frac{b\left(9a^2+4b^2\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{2\,a\left(4a^2+15b^2\right)\mathrm{Tan}[c+d\,x]}{15\,d}+\frac{b\left(9a^2+4b^2\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{a\left(4a^2+15b^2\right)\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{15\,d}+\frac{11\,a^2\,b\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{20\,d}+\frac{a^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]}{5\,d}$$

$$\frac{\left(-9 a^2 b-4 b^3\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{8 d}+\frac{\left(9 a^2 b+4 b^3\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{8 d}+$$
$$\frac{2 a^3+15 a^2 b}{80 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+\frac{19 a^3+135 a^2 b+60 a b^2+60 b^3}{240 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\frac{a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{20 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^5}+\frac{a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{20 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^5}+$$
$$\frac{-2 a^3-15 a^2 b}{80 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+\frac{-19 a^3-135 a^2 b-60 a b^2-60 b^3}{240 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\frac{2 \left(4 a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+15 a b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{15 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+\frac{2 \left(4 a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+15 a b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{15 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+$$
$$\frac{19 a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+60 a b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{120 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+\frac{19 a^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+60 a b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{120 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^4, x, 5, 0\right\}$$

$$b^4 x+\frac{2 a b \left(a^2+2 b^2\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{d}+\frac{a^2 \left(2 a^2+13 b^2\right) \text{Tan}[c+d x]}{3 d}+$$
$$\frac{4 a^2 b (b+a \text{Sec}[c+d x]) \text{Tan}[c+d x]}{3 d}+\frac{a^2 (b+a \text{Sec}[c+d x])^2 \text{Tan}[c+d x]}{3 d}$$

$$\frac{1}{12 d}\left(12 b^4 c+12 b^4 d x-24 a b \left(a^2+2 b^2\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+24 a^3 b \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\right.$$
$$48 a b^3 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\frac{a^4}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\frac{12 a^3 b}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}-\frac{a^4}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}-\frac{12 a^3 b}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\left.2 a^2 \left(-a^2 \text{Cos}[c+d x]+2 \left(2 a^2+9 b^2+\left(a^2+9 b^2\right) \text{Cos}[2 (c+d x)]\right)\right) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^5, x, 6, 0\right\}$$

$$\frac{\left(3 a^4+24 a^2 b^2+8 b^4\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{8 d}+\frac{4 a b \left(2 a^2+3 b^2\right) \text{Tan}[c+d x]}{3 d}+\frac{a^2 \left(9 a^2+46 b^2\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{24 d}+$$
$$\frac{5 a^2 b (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{6 d}+\frac{a^2 (a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{4 d}$$

$$\frac{\left(-3 a^4-24 a^2 b^2-8 b^4\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{8 d}+\frac{\left(3 a^4+24 a^2 b^2+8 b^4\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{8 d}+$$
$$\frac{a^4}{16 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+\frac{9 a^4+16 a^3 b+72 a^2 b^2}{48 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\frac{2 a^3 b \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{3 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}-\frac{a^4}{16 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+$$
$$\frac{2 a^3 b \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{3 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+\frac{-9 a^4-16 a^3 b-72 a^2 b^2}{48 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$
$$\frac{4 \left(2 a^3 b \text{Sin}\left[\frac{1}{2} (c+d x)\right]+3 a b^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{3 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+\frac{4 \left(2 a^3 b \text{Sin}\left[\frac{1}{2} (c+d x)\right]+3 a b^3 \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{3 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^6, x, 7, 0\right\}$$
$$\frac{a b \left(3 a^2+4 b^2\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 d}+\frac{\left(8 a^4+60 a^2 b^2+15 b^4\right) \text{Tan}[c+d x]}{15 d}+$$
$$\frac{a b \left(3 a^2+4 b^2\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 d}+\frac{2 a^2 \left(2 a^2+9 b^2\right) \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{15 d}+$$
$$\frac{3 a^2 b (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{5 d}+\frac{a^2 (a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^4 \text{Tan}[c+d x]}{5 d}$$
$$\frac{\left(-3 a^3 b-4 a b^3\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{2 d}+$$
$$\frac{\left(3 a^3 b+4 a b^3\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{2 d}+\frac{a^4+10 a^3 b}{40 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+$$
$$\frac{19 a^4+180 a^3 b+120 a^2 b^2+240 a b^3}{240 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+\frac{a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{20 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^5}+$$
$$\frac{a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{20 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^5}+\frac{-a^4-10 a^3 b}{40 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^4}+$$
$$\frac{-19 a^4-180 a^3 b-120 a^2 b^2-240 a b^3}{240 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+\frac{19 a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+120 a^2 b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{120 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+$$
$$\frac{19 a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+120 a^2 b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{120 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+\frac{8 a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+60 a^2 b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+15 b^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{15 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+$$
$$\frac{8 a^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+60 a^2 b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+15 b^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{15 d \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^3}{a+b \text{Cos}[c+d x]}, x, 5, 0\right\}$$

$$-\frac{2 b^3 \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3 \sqrt{a^2-b^2}\, d}+\frac{\left(a^2+2 b^2\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 a^3 d}-\frac{b \text{Tan}[c+d x]}{a^2 d}+\frac{\text{Sec}[c+d x] \text{Tan}[c+d x]}{2 a d}$$

$$\frac{1}{4 a^3 d}\left(\frac{8 b^3 \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}-2 a^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]-4 b^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\right.$$

$$2 a^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+4 b^2 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+$$

$$\left.\frac{a^2}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}-\frac{a^2}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}-4 a b \text{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{3+5 \text{Cos}[c+d x]}, x, 1, 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{1}{2} \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right]}{2 d}$$

$$\frac{-\text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]}{4 d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5 \text{Cos}[c+d x])^2}, x, 3, 0\right\}$$

$$-\frac{3 \text{ArcTanh}\left[\frac{1}{2} \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right]}{32 d}+\frac{5 \text{Sin}[c+d x]}{16 d (3+5 \text{Cos}[c+d x])}$$

$$\frac{1}{64 d (3+5 \text{Cos}[c+d x])}\left(9 \text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\right.$$

$$15 \text{Cos}[c+d x] \left(\text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]-\text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]\right)-$$

$$\left.9 \text{Log}\left[2 \text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+20 \text{Sin}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5 \text{Cos}[c+d x])^3}, x, 4, 0\right\}$$

$$\frac{43 \text{ArcTanh}\left[\frac{1}{2} \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right]}{1024 d}+\frac{5 \text{Sin}[c+d x]}{32 d (3+5 \text{Cos}[c+d x])^2}-\frac{45 \text{Sin}[c+d x]}{512 d (3+5 \text{Cos}[c+d x])}$$

$$-\frac{1}{4096\,d\,(3+5\,\mathrm{Cos}[c+d\,x])^2}\left(1849\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$2580\,\mathrm{Cos}[c+d\,x]\left(\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$1075\,\mathrm{Cos}[2\,(c+d\,x)]\left(\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$\left.1849\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+440\,\mathrm{Sin}[c+d\,x]+900\,\mathrm{Sin}[2\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 5,\ 0\right\}$$

$$-\frac{279\,\mathrm{ArcTanh}\left[\frac{1}{2}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{16384\,d}+\frac{5\,\mathrm{Sin}[c+d\,x]}{48\,d\,(3+5\,\mathrm{Cos}[c+d\,x])^3}-\frac{25\,\mathrm{Sin}[c+d\,x]}{512\,d\,(3+5\,\mathrm{Cos}[c+d\,x])^2}+\frac{995\,\mathrm{Sin}[c+d\,x]}{24576\,d\,(3+5\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{393216\,d\,(3+5\,\mathrm{Cos}[c+d\,x])^3}$$
$$\left(467046\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+104625\,\mathrm{Cos}[3\,(c+d\,x)]\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$765855\,\mathrm{Cos}[c+d\,x]\left(\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)+$$
$$376650\,\mathrm{Cos}[2\,(c+d\,x)]\left(\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]\right)-$$
$$467046\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-104625\,\mathrm{Cos}[3\,(c+d\,x)]\,\mathrm{Log}\left[2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.226140\,\mathrm{Sin}[c+d\,x]+190800\,\mathrm{Sin}[2\,(c+d\,x)]+99500\,\mathrm{Sin}[3\,(c+d\,x)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sec}[c+d\,x]^2,\ x,\ 9,\ 0\right\}$$

$$-\frac{(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$
$$\frac{b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}[c+d\,x]}{d}$$

$$-\frac{1}{4d}b\left(-\frac{2\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d\,x),\frac{2b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\left(2\,i\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\right.\right.$$

$$\mathrm{Cos}[2(c+d\,x)]\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\frac{a+b}{a-b}\right]\right)\right)\mathrm{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\sqrt{-\frac{1}{a+b}}\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},x,9,0\right\}$$

$$-\frac{(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\frac{2b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\frac{2b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d\,x),\frac{2b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}[c+d\,x]}{a\,d}$$

$$-\frac{1}{4\,a\,d}b\left(\frac{6\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\left(2\,i\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\right.\right.$$

$$\mathrm{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\mathrm{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\sqrt{-\frac{1}{a+b}}\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}[c+d\,x]}{a\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^2\,\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,a\,d}\left(-\frac{1}{(-a+b)\,(a+b)}\left(-\frac{4\,a\,b\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.\right.$$

$$\frac{2\,\left(2\,a^2-3\,b^2\right)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{1}{a\,\sqrt{-\frac{1}{a+b}}}\,2\,i\,\sqrt{-\frac{b\,(-1+\mathrm{Cos}[c+d\,x])}{a+b}}$$

$$\sqrt{\frac{b\,(1+\mathrm{Cos}[c+d\,x])}{-a+b}}\;\mathrm{Csc}[c+d\,x]\left(-2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(-2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$\left.\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\right)+\frac{4\,b^2\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}}{a+b\,\mathrm{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$-\frac{2\,a\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}+\frac{2\,\left(3\,a^2+b^2\right)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^3\,d}-$$

$$\frac{2\,a^3\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,(a+b)\,d}+\frac{2\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{3\,b\,d}$$

$$\frac{1}{3\,b\,d}\left(2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{3\,a\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+2\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]+\frac{1}{b^2\,\sqrt{\mathrm{Sin}[c+d\,x]^2}}\right.$$

$$3\left(2\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(-2\,a^2+b^2\right)\,\mathrm{EllipticPi}\left[-\frac{b}{a},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\mathrm{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])},\,x,\,5,\,0\right\}$$

$$-\frac{2\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}-\frac{2\,b\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,(a+b)\,d}+\frac{2\,\mathrm{Sin}[c+d\,x]}{a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{2\,a\,d}\left(\frac{6\,b\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{2\,a\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}-\frac{4\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}}+\right.$$

$$\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$-\frac{a\left(5\,a^2-4\,b^2\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\left(a^2-b^2\right)\,d}+\frac{\left(15\,a^4-16\,a^2\,b^2-2\,b^4\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\left(a^2-b^2\right)\,d}-$$

$$\frac{a^3\left(5\,a^2-7\,b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^4\,(a+b)^2\,d}+\frac{\left(5\,a^2-2\,b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b^2\left(a^2-b^2\right)\,d}-\frac{a^2\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{12\,b^2\,d}\left(4\,\sqrt{\text{Cos}[c+d\,x]}\left(2+\frac{3\,a^3}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}\right)\text{Sin}[c+d\,x]-\right.$$

$$\frac{1}{(a-b)\,(a+b)}\left(\frac{2\left(5\,a^3-8\,a\,b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{8\left(2\,a^2+b^2\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+\frac{1}{b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$6\left(5\,a^2-4\,b^2\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$\frac{\left(3\,a^2-2\,b^2\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\left(a^2-b^2\right)\,d}-\frac{a\left(3\,a^2-4\,b^2\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\left(a^2-b^2\right)\,d}+$$

$$\frac{a^2\left(3\,a^2-5\,b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^3\,(a+b)^2\,d}-\frac{a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4\,b\,d}\left(-\frac{4\,a^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+\frac{1}{(a-b)\,(a+b)}\right.$$
$$\left(\frac{2\,\left(a^2-2\,b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+4\,a\,\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)+\right.$$
$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,\left(3\,a^2-2\,b^2\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$
$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$
$$-\frac{a\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b\,\left(a^2-b^2\right)\,d}+\frac{\left(a^2-2\,b^2\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,\left(a^2-b^2\right)\,d}-$$
$$\frac{a\,\left(a^2-3\,b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^2\,(a+b)^2\,d}+\frac{a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4\,d}\left(\frac{4\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}-\frac{1}{(a-b)\,(a+b)}\right.$$
$$\left(8\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{10\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{1}{b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\right.$$
$$2\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$
$$\left.\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$
$$\frac{\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{\left(a^2-b^2\right)\,d}+\frac{a\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b\,\left(a^2-b^2\right)\,d}-$$
$$\frac{\left(a^2+b^2\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b\,(a+b)^2\,d}-\frac{b\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4d}\left(\frac{4b\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{(-a^2+b^2)\,(a+b\,\text{Cos}[c+dx])}-\frac{1}{b\,(-a+b)\,(a+b)}\right.$$
$$2\left(-\frac{b^2\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+2a\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-\frac{2a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}\right)+\right.$$
$$\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$
$$\left.\left.\left.(2a^2-b^2)\,\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])^2},x,6,0\right\}$$
$$-\frac{b\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a\,(a^2-b^2)\,d}-\frac{\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{(a^2-b^2)\,d}+$$
$$\frac{(3a^2-b^2)\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a\,(a-b)\,(a+b)^2\,d}+\frac{b^2\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{a\,(a^2-b^2)\,d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{4ad}\left(\frac{4b^2\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{(a^2-b^2)\,(a+b\,\text{Cos}[c+dx])}+\frac{1}{(a-b)\,(a+b)}\right.$$
$$\left(\frac{2(4a^2-3b^2)\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+8a\left(-\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]+\frac{a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}\right)-\right.$$
$$\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}2\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$
$$\left.\left.\left.(2a^2-b^2)\,\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+dx]^{3/2}\,(a+b\,\text{Cos}[c+dx])^2},x,7,0\right\}$$
$$-\frac{(2a^2-3b^2)\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a^2\,(a^2-b^2)\,d}+\frac{b\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{a\,(a^2-b^2)\,d}-$$
$$\frac{b\,(5a^2-3b^2)\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^2\,(a-b)\,(a+b)^2\,d}+\frac{(2a^2-3b^2)\,\text{Sin}[c+dx]}{a^2\,(a^2-b^2)\,d\sqrt{\text{Cos}[c+dx]}}+\frac{b^2\,\text{Sin}[c+dx]}{a\,(a^2-b^2)\,d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{4a^2 d}\left(-\frac{1}{(-a+b)(a+b)}\left(\frac{2\left(-10a^2b+9b^3\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\frac{\left(-4a^3+8ab^2\right)\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-\frac{2a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}\right)}{b}-\frac{1}{ab\sqrt{\text{Sin}[c+dx]^2}}\right.\right.$$

$$2\left(2a^2-3b^2\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$

$$\left.\left.\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)+$$

$$\left.4\sqrt{\text{Cos}[c+dx]}\left(\frac{b^3\,\text{Sin}[c+dx]}{\left(-a^2+b^2\right)(a+b\,\text{Cos}[c+dx])}+2\,\text{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+dx]^{5/2}(a+b\,\text{Cos}[c+dx])^2},x,8,0\right\}$$

$$\frac{b\left(4a^2-5b^2\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a^3\left(a^2-b^2\right)d}+\frac{\left(2a^2-5b^2\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3a^2\left(a^2-b^2\right)d}+$$

$$\frac{b^2\left(7a^2-5b^2\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^3(a-b)(a+b)^2d}+\frac{\left(2a^2-5b^2\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{b\left(4a^2-5b^2\right)\text{Sin}[c+dx]}{a^3\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}+\frac{b^2\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{12a^3d}\left(\frac{1}{(a-b)(a+b)}\left(\frac{2\left(4a^4+44a^2b^2-45b^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.\right.$$

$$\frac{8\left(7a^3-10ab^2\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{a+b}+\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}$$

$$6\left(4a^2-5b^2\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$

$$\left.\left.\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)+$$

$$\left.4\sqrt{\text{Cos}[c+dx]}\left(\frac{3b^4\,\text{Sin}[c+dx]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+2\left(-6b+a\,\text{Sec}[c+dx]\right)\text{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^{9/2}}{(a+b\,\text{Cos}[c+dx])^3},x,8,0\right\}$$

$$-\frac{a\left(35a^4-65a^2b^2+24b^4\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{4b^4\left(a^2-b^2\right)^2d}+\frac{\left(105a^6-223a^4b^2+128a^2b^4+8b^6\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{12b^5\left(a^2-b^2\right)^2d}-$$

$$\frac{a^3\left(35a^4-86a^2b^2+63b^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{4(a-b)^2b^5(a+b)^3d}+\frac{\left(35a^4-61a^2b^2+8b^4\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{12b^3\left(a^2-b^2\right)^2d}-$$

$$\frac{a^2\text{Cos}[c+dx]^{5/2}\text{Sin}[c+dx]}{2b\left(a^2-b^2\right)d(a+b\text{Cos}[c+dx])^2}-\frac{a^2\left(7a^2-13b^2\right)\text{Cos}[c+dx]^{3/2}\text{Sin}[c+dx]}{4b^2\left(a^2-b^2\right)^2d(a+b\text{Cos}[c+dx])}$$

$$\frac{1}{48b^3d}\left(\frac{4\sqrt{\text{Cos}[c+dx]}\left(35a^6-57a^4b^2+4b^6+ab\left(49a^4-83a^2b^2+16b^4\right)\text{Cos}[c+dx]+4\left(-a^2b+b^3\right)^2\text{Cos}[2(c+dx)]\right)\text{Sin}[c+dx]}{\left(a^2-b^2\right)^2(a+b\text{Cos}[c+dx])^2}-\right.$$

$$\frac{1}{(a-b)^2(a+b)^2}\left(\frac{2\left(35a^5-73a^3b^2+56ab^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.$$

$$\frac{16\left(7a^4-14a^2b^2-2b^4\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{a+b}+$$

$$\frac{1}{b^2\sqrt{\text{Sin}[c+dx]^2}}6\left(35a^4-65a^2b^2+24b^4\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^{7/2}}{(a+b\text{Cos}[c+dx])^3},x,7,0\right\}$$

$$\frac{\left(15a^4-29a^2b^2+8b^4\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{4b^3\left(a^2-b^2\right)^2d}-$$

$$\frac{3a\left(5a^4-11a^2b^2+8b^4\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{4b^4\left(a^2-b^2\right)^2d}+\frac{a^2\left(15a^4-38a^2b^2+35b^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{4(a-b)^2b^4(a+b)^3d}-$$

$$\frac{a^2\text{Cos}[c+dx]^{3/2}\text{Sin}[c+dx]}{2b\left(a^2-b^2\right)d(a+b\text{Cos}[c+dx])^2}-\frac{a^2\left(5a^2-11b^2\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4b^2\left(a^2-b^2\right)^2d(a+b\text{Cos}[c+dx])}$$

$$\frac{1}{8 b^2 d}\left(-\frac{2 a^2 \sqrt{\text{Cos}[c+d x]}\left(5 a^3-11 a b^2+b\left(7 a^2-13 b^2\right) \text{Cos}[c+d x]\right) \text{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2}+\right.$$

$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{\left(5 a^4-7 a^2 b^2+8 b^4\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\right.$$

$$\frac{8\left(a^3-4 a b^2\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}}$$

$$\left(15 a^4-29 a^2 b^2+8 b^4\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+\right.$$

$$\left.\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{5/2}}{(a+b \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$-\frac{3 a\left(a^2-3 b^2\right) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{4 b^2\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(3 a^4-5 a^2 b^2+8 b^4\right) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{4 b^3\left(a^2-b^2\right)^2 d}-\frac{3 a\left(a^4-2 a^2 b^2+5 b^4\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{4 (a-b)^2 b^3 (a+b)^3 d}-$$

$$\frac{a^2 \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{2 b\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{3 a\left(a^2-3 b^2\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{4 b\left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{16 b d}\left(\frac{4 a \sqrt{\text{Cos}[c+d x]}\left(a^3-7 a b^2+3 b\left(a^2-3 b^2\right) \text{Cos}[c+d x]\right) \text{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2}-\right.$$

$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2\left(a^3+5 a b^2\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}-\right.$$

$$\frac{16\left(a^2+2 b^2\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{b^2 \sqrt{\text{Sin}[c+d x]^2}}$$

$$6\left(a^2-3 b^2\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+\right.$$

$$\left.\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$-\frac{\left(a^2+5b^2\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{4b\left(a^2-b^2\right)^2 d}+\frac{a\left(a^2-7b^2\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{4b^2\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(a^4-10a^2b^2-3b^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{4(a-b)^2b^2(a+b)^3 d}+\frac{a\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^2}+\frac{\left(a^2+5b^2\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4\left(a^2-b^2\right)^2 d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{16d}\left(\frac{4\sqrt{\text{Cos}[c+dx]}\left(3a\left(a^2+b^2\right)+b\left(a^2+5b^2\right)\text{Cos}[c+dx]\right)\text{Sin}[c+dx]}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])^2}-\right.$$

$$\frac{1}{(a-b)^2(a+b)^2}\left(-\frac{2\left(5a^2+b^2\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.$$

$$24a\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-\frac{2a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}\right)+\frac{1}{ab^2\sqrt{\text{Sin}[c+dx]^2}}$$

$$2\left(a^2+5b^2\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$

$$\left.\left.\left.\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+dx]}}{(a+b\,\text{Cos}[c+dx])^3},x,7,0\right\}$$

$$\frac{\left(5a^2+b^2\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{4a\left(a^2-b^2\right)^2 d}+$$

$$\frac{3\left(a^2+b^2\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{4b\left(a^2-b^2\right)^2 d}-\frac{\left(3a^4+10a^2b^2-b^4\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{4a(a-b)^2b(a+b)^3 d}-$$

$$\frac{b\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^2}-\frac{b\left(5a^2+b^2\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4a\left(a^2-b^2\right)^2 d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{16\,a\,d}\left(-\frac{4\,b\,\sqrt{\text{Cos}[c+d\,x]}\,\left(7\,a^3-a\,b^2+b\,\left(5\,a^2+b^2\right)\,\text{Cos}[c+d\,x]\right)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{2\,\left(-9\,a^2\,b+3\,b^3\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{8\,a\,\left(2\,a^2+b^2\right)\,\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}+\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$2\,\left(5\,a^2+b^2\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$-\frac{3\,b\,\left(3\,a^2-b^2\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(7\,a^2-b^2\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a\,\left(a^2-b^2\right)^2\,d}+\frac{3\,\left(5\,a^4-2\,a^2\,b^2+b^4\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,(a-b)^2\,(a+b)^3\,d}+$$

$$\frac{b^2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{3\,b^2\,\left(3\,a^2-b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{16\,a^2\,d}\left(\frac{4\,b^2\,\sqrt{\text{Cos}[c+d\,x]}\,\left(11\,a^3-5\,a\,b^2+\left(9\,a^2\,b-3\,b^3\right)\,\text{Cos}[c+d\,x]\right)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{2\,\left(16\,a^4-19\,a^2\,b^2+9\,b^4\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{16\,\left(-4\,a^3+a\,b^2\right)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}-\frac{1}{a\,\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$6\,\left(3\,a^2-b^2\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$-\frac{\left(8 a^4-29 a^2 b^2+15 b^4\right) \text{EllipticE}\left[\frac{1}{2} (c+d x),2\right]}{4 a^3 \left(a^2-b^2\right)^2 d}+\frac{b \left(11 a^2-5 b^2\right) \text{EllipticF}\left[\frac{1}{2} (c+d x),2\right]}{4 a^2 \left(a^2-b^2\right)^2 d}-$$

$$\frac{b \left(35 a^4-38 a^2 b^2+15 b^4\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2} (c+d x),2\right]}{4 a^3 (a-b)^2 (a+b)^3 d}+\frac{\left(8 a^4-29 a^2 b^2+15 b^4\right) \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{b^2 \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d \sqrt{\text{Cos}[c+d x]} (a+b \text{Cos}[c+d x])^2}+\frac{b^2 \left(11 a^2-5 b^2\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]} (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{16 a^3 d}\left(-\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2 \left(56 a^4 b-95 a^2 b^3+45 b^5\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2} (c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{8 a \left(2 a^4-10 a^2 b^2+5 b^4\right) \left(2 \text{EllipticF}\left[\frac{1}{2} (c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2} (c+d x),2\right]}{a+b}\right)}{b}+\frac{1}{a b \sqrt{\text{Sin}[c+d x]^2}}$$

$$2 \left(8 a^4-29 a^2 b^2+15 b^4\right) \left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)+$$

$$\left.4 \sqrt{\text{Cos}[c+d x]} \left(\frac{b^3 \left(-15 a^3+9 a b^2+\left(-13 a^2 b+7 b^3\right) \text{Cos}[c+d x]\right) \text{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2}+8 \text{Tan}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d x]^{5/2} (a+b \text{Cos}[c+d x])^3},x,9,0\right\}$$

$$\frac{b \left(24 a^4-65 a^2 b^2+35 b^4\right) \text{EllipticE}\left[\frac{1}{2} (c+d x),2\right]}{4 a^4 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(8 a^4-61 a^2 b^2+35 b^4\right) \text{EllipticF}\left[\frac{1}{2} (c+d x),2\right]}{12 a^3 \left(a^2-b^2\right)^2 d}+\frac{b^2 \left(63 a^4-86 a^2 b^2+35 b^4\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2} (c+d x),2\right]}{4 a^4 (a-b)^2 (a+b)^3 d}+$$

$$\frac{\left(8 a^4-61 a^2 b^2+35 b^4\right) \text{Sin}[c+d x]}{12 a^3 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2}}-\frac{b \left(24 a^4-65 a^2 b^2+35 b^4\right) \text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{b^2 \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2} (a+b \text{Cos}[c+d x])^2}+\frac{b^2 \left(13 a^2-7 b^2\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2} (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{48 a^4 d}\left(\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2\left(16 a^6+328 a^4 b^2-641 a^2 b^4+315 b^6\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\frac{16\left(20 a^5-64 a^3 b^2+35 a b^4\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{a \sqrt{\text{Sin}[c+d x]^2}} 6\left(24 a^4-65 a^2 b^2+35 b^4\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\right)+4 \sqrt{\text{Cos}[c+d x]}\left(\frac{3 b^4\left(19 a^3-13 a b^2+b\left(17 a^2-11 b^2\right) \text{Cos}[c+d x]\right) \text{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2}+8(-9 b+a \text{Sec}[c+d x]) \text{Tan}[c+d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d x]^{3/2} \sqrt{a+b \text{Cos}[c+d x]}, x, 7, 0\right\}$$

$$\frac{a (a+b) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{4 b d \sqrt{a+b \text{Cos}[c+d x]}}+\frac{(a-2 b) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{2 d \sqrt{a+b \text{Cos}[c+d x]}}-\frac{\left(a^2-4 b^2\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{2 b d \sqrt{a+b \text{Cos}[c+d x]}}+\frac{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{2 d}+\frac{a \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b d}$$

$$\frac{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{2 d}+$$

$$\frac{1}{8 d}\left(-\left(12 a^2 \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$16\,a\,b\,\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2a\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\right],-\frac{2a}{-a-b}\right]\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\;\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Bigg/\left(b\sqrt{\mathrm{Cos}[c+dx]}\;\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\mathrm{Cos}[c+dx]^{3/2}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2},\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(3a^2+16b^2\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{24\,b\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{a(7a-26b)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{12\,d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{a\left(a^2-12b^2\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{4\,b\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{7a\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{12\,d}+\frac{b\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,d}+$$

$$\frac{\left(3a^2+16b^2\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{24\,b\,d}$$

$$\frac{1}{48\,d}\left(-\left(4a\left(17a^2+16b^2\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$208\,a^2\,b\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2\left(3a^2+16b^2\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{7}{12}\,a\,\text{Sin}[c+d\,x]+\frac{1}{6}\,b\,\text{Sin}[2\,(c+d\,x)]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2},\,x,\,7,\,0\right\}$$

$$\frac{5\,a\,(a+b)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\left(4\,a^2-a\,b+2\,b^2\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(3\,a^2+4\,b^2\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+\frac{5\,a\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{4\,d}$$

$$\frac{b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(28\,a^2\,b\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,\left(8\,a^2+4\,b^2\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$10\,a\,b\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}}{\mathrm{Cos}[c+dx]^{3/2}},\,x,\,6,\,0\Big\}$$

$$-\frac{2\,a\,(a+b)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(a^2+2\,a\,b-b^2\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,b^2\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\left(4\,a^2\,b\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{d}\,4\,a\,\left(a^2-b^2\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{2\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\sqrt{\text{Cos}[c+d\,x]}}-$$

$$\frac{1}{d}\,2\,a\,b\left(\frac{i\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2},\,x,\,9,\,0\right\}$$

$$\frac{a\,(a+b)\,\left(15\,a^2+284\,b^2\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{192\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(59\,a^3-322\,a^2\,b+36\,a\,b^2-72\,b^3\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{96\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\left(5\,a^4-120\,a^2\,b^2-48\,b^4\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{32\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(59\,a^2+36\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{96\,d}+\frac{17\,a\,b\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d}+$$

$$\frac{b^2\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{a\,\left(15\,a^2+284\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d}$$

$$\frac{1}{384\,d}\left(-\left(4\,a\left(133\,a^3+356\,a\,b^2\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\left(644\,a^2\,b+144\,b^3\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(15a^3+284ab^2\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{96}\left(59a^2+42b^2\right)\mathrm{Sin}[c+dx]+\frac{17}{48}ab\,\mathrm{Sin}[2(c+dx)]+\frac{1}{16}b^2\,\mathrm{Sin}[3(c+dx)]\Big)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2},\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(33a^2+16b^2\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{24\,d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{a\left(24a^2-13ab+38b^2\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{12\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{5a\left(a^2+4b^2\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{4\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{13ab\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{12\,d}+\frac{b^2\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3\,d}+$$

$$\frac{\left(33a^2+16b^2\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{24\,d}$$

$$\frac{1}{48\,d}\left(-\left(4a\left(59a^2b+16b^3\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-4a\left(48a^3+76ab^2\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2\left(33a^2b+16b^3\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{13}{12}\,a\,b\,\text{Sin}[c+d\,x]+\frac{1}{6}\,b^2\,\text{Sin}[2\,(c+d\,x)]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{5/2}}{\text{Cos}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{(a+b)\,\left(2\,a^2-b^2\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,\left(a^2+3\,a\,b-3\,b^2\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{10\,a\,b^2\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{\left(2\,a^2-b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{2 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]}\ \operatorname{Sin}[c+d x]}{d \sqrt{\operatorname{Cos}[c+d x]}}+$$

$$\frac{1}{2 d}\left(\left(4 a \left(-4 a^2 b-b^3\right) \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)+4 a \left(2 a^3-6 a b^2\right)$$

$$\left(\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/$$

$$\left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)-$$

$$2\,\left(2\,a^2\,b-b^3\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{2+3\,\mathrm{Cos}[c+d\,x]}},\;x,\;1,\;0\right\}$$

$$\frac{2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]}{\sqrt{5}\,d}$$

$$\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{-1+\sqrt{5}+\frac{4}{-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}}}{\sqrt{2}\,5^{1/4}}\right],\frac{1}{2}\left(-5-3\sqrt{5}\right)\right]\right.$$

$$(1+\text{Cos}[c+d\,x]-\text{Sin}[c+d\,x])\left(\sqrt{5}-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\left(\sqrt{5}+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

$$\left.\sqrt{\frac{5-\sqrt{5}+\left(-1+\sqrt{5}\right)\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}}\sqrt{\frac{-5\left(1+\sqrt{5}\right)+\left(5+\sqrt{5}\right)\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}}\right)\Big/$$

$$\left(\sqrt{2}\,5^{1/4}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(2+3\,\text{Cos}[c+d\,x])^{3/2}\sqrt{-\frac{\left(-3+\sqrt{5}\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)}{-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{-2+3\,\text{Cos}[c+d\,x]}},x,1,0\right\}$$

$$\frac{2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],5\right]}{d}$$

$$\frac{4\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{-2+3\,\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{5}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]}{\sqrt{5}\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{-2+3\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{-3+2\,\text{Cos}[c+d\,x]}},x,1,0\right\}$$

$$\frac{2\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{-3+2\,\text{Cos}[c+d\,x]}{-1-\text{Cos}[c+d\,x]}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-5\right]}{d\,\sqrt{-3+2\,\text{Cos}[c+d\,x]}}$$

$$\frac{2\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\frac{-3+2\,\text{Cos}[c+d\,x]}{-1+\text{Cos}[c+d\,x]}}\,\sqrt{-\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{-3+2\,\text{Cos}[c+d\,x]}{-1+\text{Cos}[c+d\,x]}}}{\sqrt{3}}\right],\frac{6}{5}\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{5}\,d\,\sqrt{\frac{\text{Cos}[c+d\,x]}{-1+\text{Cos}[c+d\,x]}}\,\sqrt{-3+2\,\text{Cos}[c+d\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{\sqrt{2+3\,\text{Cos}[c+d\,x]}},x,3,0\right\}$$

$$-\frac{2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]}{\sqrt{5}\,d}+\frac{4\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]}{\sqrt{5}\,d}$$

$$-\left(4\sqrt{\frac{-2-3\,\text{Cos}[c+d\,x]}{-1+\text{Cos}[c+d\,x]}}\sqrt{\frac{\text{Cos}[c+d\,x]}{-1+\text{Cos}[c+d\,x]}}\sqrt{\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(3\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{1}{2}\sqrt{(2+3\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}\right],-4\right]-5\,\text{EllipticPi}\left[-\frac{2}{3},\text{ArcSin}\left[\frac{1}{2}\sqrt{(2+3\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}\right],-4\right]\right)\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\Big/\left(3\,d\sqrt{\text{Cos}[c+d\,x]}\sqrt{2+3\,\text{Cos}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}}{\sqrt{-2+3\,\text{Cos}[c+d\,x]}},x,3,0\right\}$$

$$-\frac{2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],5\right]}{d}+\frac{4\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],5\right]}{d}$$

$$-\left(4\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{-2+3\,\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{5}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]+2\,\text{EllipticPi}\left[-\frac{1}{5},-\text{ArcSin}\left[\sqrt{5}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{1}{5}\right]\right)\right)\Big/\left(\sqrt{5}\,d\sqrt{\text{Cos}[c+d\,x]}\sqrt{-2+3\,\text{Cos}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\text{Cos}[c+d\,x]}\sqrt{a+b\,\text{Cos}[c+d\,x]}},x,1,0\right\}$$

$$\frac{2\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$-\left(4(a+b)\,\text{Cos}[c+d\,x]^{3/2}\sqrt{-\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{a-b}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{-\frac{a+b\,\text{Cos}[c+d\,x]}{a(-1+\text{Cos}[c+d\,x])}}\right],\frac{2a}{a-b}\right]\right)\Big/\left(a\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}\right)^{3/2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{2\,(a+b)\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{a\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{a\,d\,\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\left(\frac{1}{2}\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[2\,(c+d\,x)]-2\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\left(\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)^{3/2}\sqrt{1+\text{Cos}[c+d\,x]}\right.$$

$$\left((a+b)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-\right.$$

$$a\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$\left.\left.(a+b\,\text{Cos}[c+d\,x])\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\ \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{\left(3\,a^2-b^2\right)\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{(a-b)\,b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{6\,a\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a^2\sqrt{\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{\left(3\,a^2-b^2\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b^2\left(a^2-b^2\right)d}$$

$$-\frac{2 a^2 \sqrt{\text{Cos}[c+d x]}\ \text{Sin}[c+d x]}{b \left(a^2-b^2\right) d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{1}{2 (a-b) b (a+b) d}\left(-\left(4 a \left(a^2-b^2\right) \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \text{Csc}[c+d x] \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2} (c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\right)-$$

$$\left(8 a^2 b \left(\sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d x] \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \text{Sin}\left[\frac{1}{2} (c+d x)\right]^4\right) \Big/$$

$$\left((a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(3\,a^2-b^2\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;6,\;0\right\}$$

$$\frac{2\,b\,\left(5\,a^2-8\,b^2\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a^3\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(a^2-6\,a\,b+8\,b^2\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b^2\,\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,\left(a^2-4\,b^2\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)\,d\,\text{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{2\,b\,\left(5\,a^2-8\,b^2\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^3\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3\,a^3\,(a-b)\,(a+b)\,d}\left(-\left(4\,a\,\left(a^4+7\,a^2\,b^2-8\,b^4\right)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,\left(5\,a^3\,b-8\,a\,b^3\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(5\,a^2\,b^2-8\,b^4\right)\left(\frac{i\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\Big((a+b)$$

$$\left.\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{2\,b^4\,\mathrm{Sin}[c+d\,x]}{a^3\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}-\frac{10\,b\,\mathrm{Tan}[c+d\,x]}{3\,a^3}+\frac{2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a^2}\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\;x,\;7,\;0\right\}$$

$$-\frac{2\,a\,(3\,a^2-7\,b^2)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{3\,(a-b)^2\,b^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,a^2-3\,a\,b-3\,b^2)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{3\,(a-b)^2\,b\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{4\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,a^2\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,b\,(a^2-b^2)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}-\frac{2\,a\,(3\,a^2-7\,b^2)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,(a-b)\,b^2\,(a+b)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(-\frac{2\,a^2\,\mathrm{Sin}[c+d\,x]}{3\,b\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{2\,(3\,a^3\,\mathrm{Sin}[c+d\,x]-7\,a\,b^2\,\mathrm{Sin}[c+d\,x])}{3\,b\,(a^2-b^2)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}-$$

$$\frac{1}{3\,(a-b)^2\,b\,(a+b)^2\,d}\left(-\left(4\,a\,(a^3-a\,b^2)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,\left(-a^2\,b-3\,b^3\right)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(3a^3-7ab^2\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\right],-\frac{2a}{-a-b}\right]\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}},x,5,0\right\}$$

$$-\frac{4b\left(3a^2-b^2\right)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^2+3ab-2b^2\right)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a(a-b)^2(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2b^2\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}}-\frac{4b\left(3a^2-b^2\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^2(a-b)(a+b)^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2\,b^2\,\text{Sin}[c+d\,x]}{3\,a\,(a^2-b^2)\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{4\,(3\,a^2\,b^2\,\text{Sin}[c+d\,x]-b^4\,\text{Sin}[c+d\,x])}{3\,a^2\,(a^2-b^2)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+$$

$$\frac{1}{3\,a^2\,(a-b)^2\,(a+b)^2\,d}\left(-\left(4\,a\,(3\,a^4-5\,a^2\,b^2+2\,b^4)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(-6\,a^3\,b+2\,a\,b^3)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(-6\,a^2\,b^2+2\,b^4\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\;x,\;6,\;0\right\}$$

$$-\frac{2\left(3a^4-15a^2b^2+8b^4\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^3-9a^2b-6ab^2+8b^3\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2b^2\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{8b^2\left(2a^2-b^2\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4-15a^2b^2+8b^4\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}}$$

$$-\frac{1}{3a^3(a-b)^2(a+b)^2d}\left(-\left(4a\left(9a^4b-17a^2b^3+8b^5\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$4a\left(3a^5-15a^3b^2+8ab^4\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(-\frac{2\,b^3\,\text{Sin}[c+d\,x]}{3\,a^2\,(a^2-b^2)\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{2\left(9\,a^2\,b^3\,\text{Sin}[c+d\,x]-5\,b^5\,\text{Sin}[c+d\,x]\right)}{3\,a^3\,(a^2-b^2)^2\,(a+b\,\text{Cos}[c+d\,x])}+\frac{2\,\text{Tan}[c+d\,x]}{a^3}\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},x,7,0\right\}$$

$$\frac{8\,b\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a^4\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(a^4-9\,a^3\,b+16\,a^2\,b^2+12\,a\,b^3-16\,b^4\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a^3\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b^2\,\text{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)d\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{4\,b^2\left(5\,a^2-3\,b^2\right)\text{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)^2 d\,\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(a^4-13\,a^2\,b^2+8\,b^4\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,a^3\left(a^2-b^2\right)^2 d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{8\,b\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,a^4\left(a^2-b^2\right)^2 d\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(4 a \left(a^6+15 a^4 b^2-32 a^2 b^4+16 b^6\right) \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]$$

$$\left.\left.\operatorname{Sin}\left[\frac{1}{2} (c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right) - 4 a \left(8 a^5 b-28 a^3 b^3+16 a b^5\right)$$

$$\left(\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \operatorname{Sin}\left[\frac{1}{2} (c+d x)\right]^4\right) \Big/$$

$$\left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right) - \left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticPi}\left[-\frac{a}{b}, \operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(8a^4b^2-28a^2b^4+16b^6\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2b^4\,\mathrm{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}+\frac{8\left(3a^2b^4\,\mathrm{Sin}[c+dx]-2b^6\,\mathrm{Sin}[c+dx]\right)}{3a^4\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])}-\frac{16b\,\mathrm{Tan}[c+dx]}{3a^4}+\frac{2\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{3a^3}\right)}{d}$$

Timed out after 60 seconds:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{5/3}}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x,0,0\right\}$$

$$\mathrm{Int}\Big[\frac{\mathrm{Cos}[c+dx]^{5/3}}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x\Big]$$

???

Timed out after 60 seconds:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{4/3}\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x,\ 1,\ 0\right\}$$

$$-\frac{3\,\text{Int}\left[\frac{-\frac{b}{6}+\frac{2}{3}a\,\text{Cos}[c+d\,x]+\frac{7}{6}b\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{1/3}\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x\right]}{a}+\frac{3\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{a\,d\,\text{Cos}[c+d\,x]^{1/3}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{1}{\text{Cos}[c+d\,x]^{7/3}\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x,\ 2,\ 0\right\}$$

$$\frac{9\,\text{Int}\left[\frac{\frac{1}{36}\left(4\,a^2-5\,b^2\right)+\frac{1}{2}a\,b\,\text{Cos}[c+d\,x]+\frac{35}{36}b^2\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{1/3}\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x\right]}{4\,a^2}+\frac{3\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{4\,a\,d\,\text{Cos}[c+d\,x]^{4/3}}-\frac{15\,b\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{8\,a^2\,d\,\text{Cos}[c+d\,x]^{1/3}}$$

???

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{5/2}}{a+b\,\text{Cos}[c+d\,x]},\ x,\ 8,\ 0\right\}$$

$$\frac{2\,b\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{2\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+\frac{2\,b^2\sqrt{\text{Cos}[c+d\,x]}\ \text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,(a+b)\,d}-$$

$$\frac{2\,b\sqrt{\text{Sec}[c+d\,x]}\ \text{Sin}[c+d\,x]}{a^2\,d}+\frac{2\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}$$

$$-\frac{1}{3\,a^3\,d}\,2\,\text{Csc}[2\,(c+d\,x)]$$

$$\Big(-a^2\sqrt{\text{Sec}[c+d\,x]}+a^2\,\text{Cos}[2\,(c+d\,x)]\sqrt{\text{Sec}[c+d\,x]}+6\,a\,b\,\text{Cos}[c+d\,x]^2\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\ -1\right]$$

$$\sqrt{-\text{Tan}[c+d\,x]^2}-2\left(a^2+3\,a\,b+3\,b^2\right)\text{Cos}[c+d\,x]^2\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{-\text{Tan}[c+d\,x]^2}-$$

$$3\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\ -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{-\text{Tan}[c+d\,x]^2}-$$

$$3\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\text{EllipticPi}\left[-\frac{a}{b},\ -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{-\text{Tan}[c+d\,x]^2}\Big)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^2},\ x,\ 9,\ 0\right\}$$

$$\frac{b\left(4a^2-5b^2\right)\sqrt{\text{Cos}[c+dx]}\ \text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2a^2-5b^2\right)\sqrt{\text{Cos}[c+dx]}\ \text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2\left(a^2-b^2\right)d}+$$

$$\frac{b^2\left(7a^2-5b^2\right)\sqrt{\text{Cos}[c+dx]}\ \text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^3(a-b)(a+b)^2d}-$$

$$\frac{b\left(4a^2-5b^2\right)\sqrt{\text{Sec}[c+dx]}\ \text{Sin}[c+dx]}{a^3\left(a^2-b^2\right)d}+\frac{\left(2a^2-5b^2\right)\text{Sec}[c+dx]^{3/2}\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d}+\frac{b^2\text{Sec}[c+dx]^{3/2}\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{12a^3(-a+b)(a+b)d}$$

$$\left(-\left(2\left(-28a^3b+40ab^3\right)\text{Cos}[c+dx]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right](b+a\,\text{Sec}[c+dx])\sqrt{1-\text{Sec}[c+dx]^2}\right.\right.$$

$$\left.\text{Sin}[c+dx]\right)\Big/\left(b(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+\left(2\left(-4a^4-44a^2b^2+45b^4\right)\text{Cos}[c+dx]^2\right.$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\right)$$

$$\left.(b+a\,\text{Sec}[c+dx])\sqrt{1-\text{Sec}[c+dx]^2}\ \text{Sin}[c+dx]\right)\Big/\left(a(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+$$

$$\frac{1}{ab^2(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}\left(2-\text{Sec}[c+dx]^2\right)}$$

$$\left(-12a^2b^2+15b^4\right)\text{Cos}[2(c+dx)](b+a\,\text{Sec}[c+dx])$$

$$\left(-4ab+4ab\,\text{Sec}[c+dx]^2-4ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+\right.$$

$$2(2a-b)b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+$$

$$4a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}-$$

$$\left.\left.2b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}\right)\text{Sin}[c+dx]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+dx]}\left(-\frac{b\left(4a^2-5b^2\right)\text{Sin}[c+dx]}{a^3\left(a^2-b^2\right)}-\frac{b^3\text{Sin}[c+dx]}{a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+\frac{2\,\text{Tan}[c+dx]}{3a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+dx]^{3/2}}{(a+b\,\text{Cos}[c+dx])^2},x,8,0\right\}$$

$$-\frac{\left(2a^2-3b^2\right)\sqrt{\text{Cos}[c+dx]}\ \text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2\left(a^2-b^2\right)d}+$$

$$\frac{b\sqrt{\text{Cos}[c+dx]}\ \text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a\left(a^2-b^2\right)d}-$$

$$\frac{b\left(5a^2-3b^2\right)\sqrt{\text{Cos}[c+dx]}\ \text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^2(a-b)(a+b)^2d}+$$

$$\frac{\left(2a^2-3b^2\right)\sqrt{\text{Sec}[c+dx]}\ \text{Sin}[c+dx]}{a^2\left(a^2-b^2\right)d}+\frac{b^2\sqrt{\text{Sec}[c+dx]}\ \text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{\sqrt{\text{Sec}[c+d x]}\left(\frac{\left(2 a^2-3 b^2\right) \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right)}+\frac{b^2 \text{Sin}[c+d x]}{a \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}\right)}{d}-$$

$$\frac{1}{4 a^2 (a-b) (a+b) d}\left(-\left(2 \left(4 a^3-8 a b^2\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right.\right.$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2 \left(10 a^2 b-9 b^3\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)\right.$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(2 a^2 b-3 b^3\right) \text{Cos}[2 (c+d x)]$$

$$(b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]}\right.$$

$$\sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{5/2}}, x, 7, 0\right\}$$

$$\frac{\left(3 a^2-2 b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^2 \left(a^2-b^2\right) d}-$$

$$\frac{a \left(3 a^2-4 b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^3 \left(a^2-b^2\right) d}+$$

$$\frac{a^2 \left(3 a^2-5 b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{(a-b) b^3 (a+b)^2 d}-\frac{a^2 \text{Sin}[c+d x]}{b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{a^2\,\text{Sin}[c+d\,x]}{b^2\left(a^2-b^2\right)}+\frac{a^3\,\text{Sin}[c+d\,x]}{b^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+\frac{1}{4\,(a-b)\,b\,(a+b)\,d}$$

$$\left(-\frac{8\,a\,\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right](b+a\,\text{Sec}[c+d\,x])\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]}{(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)}+\right.$$

$$\left(2\left(a^2-2\,b^2\right)\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]\right)\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\left(2-\text{Sec}[c+d\,x]^2\right)}\left(3\,a^2-2\,b^2\right)\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,10,\,0\right\}$$

$$\frac{b\left(24\,a^4-65\,a^2\,b^2+35\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,a^4\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(8\,a^4-61\,a^2\,b^2+35\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{12\,a^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{b^2\left(63\,a^4-86\,a^2\,b^2+35\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,a^4\,(a-b)^2\,(a+b)^3\,d}-$$

$$\frac{b\left(24\,a^4-65\,a^2\,b^2+35\,b^4\right)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a^4\left(a^2-b^2\right)^2 d}+\frac{\left(8\,a^4-61\,a^2\,b^2+35\,b^4\right)\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{12\,a^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{b^2\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{2\,a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{b^2\left(13\,a^2-7\,b^2\right)\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{4\,a^2\left(a^2-b^2\right)^2 d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(160 a^5 b - 512 a^3 b^3 + 280 a b^5\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) + \left(2 \left(16 a^6 + 328 a^4 b^2 - 641 a^2 b^4 + 315 b^6\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] + \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right]\right) (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) + \frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(72 a^4 b^2 - 195 a^2 b^4 + 105 b^6\right) \text{Cos}[2 (c+d x)] (b + a \text{Sec}[c+d x]) \left(-4 a b + 4 a b \text{Sec}[c+d x]^2 - 4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} + 2 (2 a - b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} + 4 a^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} - 2 b^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right) + \frac{\sqrt{\text{Sec}[c+d x]} \left(-\frac{b \left(24 a^4 - 65 a^2 b^2 + 35 b^4\right) \text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2} - \frac{b^3 \text{Sin}[c+d x]}{2 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2} - \frac{3 \left(5 a^2 b^3 \text{Sin}[c+d x] - 3 b^5 \text{Sin}[c+d x]\right)}{4 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])} + \frac{2 \text{Tan}[c+d x]}{3 a^3}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^3}, x, 9, 0\right\}$$

$$-\frac{\left(8 a^4 - 29 a^2 b^2 + 15 b^4\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^3 \left(a^2-b^2\right)^2 d} + \frac{b \left(11 a^2 - 5 b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 \left(a^2-b^2\right)^2 d} - \frac{b \left(35 a^4 - 38 a^2 b^2 + 15 b^4\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^3 (a-b)^2 (a+b)^3 d} + \frac{\left(8 a^4 - 29 a^2 b^2 + 15 b^4\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2 d} + \frac{b^2 \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2} + \frac{b^2 \left(11 a^2 - 5 b^2\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{16 a^3 (a-b)^2 (a+b)^2 d}\left(-\left(2\left(16 a^5-80 a^3 b^2+40 a b^4\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right](b+a \text{Sec}[c+d x])\right.\right.$$

$$\left.\sqrt{1-\text{Sec}[c+d x]^2}\,\text{Sin}[c+d x]\right)\Big/\left(b(a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2\left(56 a^4 b-95 a^2 b^3+45 b^5\right)\right.$$

$$\text{Cos}[c+d x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)$$

$$\left.(b+a \text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\,\text{Sin}[c+d x]\right)\Big/\left(a(a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}\left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(8 a^4 b-29 a^2 b^3+15 b^5\right) \text{Cos}[2(c+d x)](b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2(2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}\right)\text{Sin}[c+d x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]}\left(\frac{\left(8 a^4-29 a^2 b^2+15 b^4\right)\text{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2}+\frac{b^2 \text{Sin}[c+d x]}{2 a\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\frac{11 a^2 b^2 \text{Sin}[c+d x]-5 b^4 \text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{3 b\left(3 a^2-b^2\right)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{4 a^2\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(7 a^2-b^2\right)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{4 a\left(a^2-b^2\right)^2 d}+$$

$$\frac{3\left(5 a^4-2 a^2 b^2+b^4\right)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{4 a^2 (a-b)^2 (a+b)^3 d}+$$

$$\frac{b^2 \text{Sin}[c+d x]}{2 a\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}+\frac{3 b^2\left(3 a^2-b^2\right)\text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16 a^2 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(-32 a^3 b+8 a b^3\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2}\right.\right.$$

$$\left.\text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(16 a^4-19 a^2 b^2+9 b^4\right) \text{Cos}[c+d x]^2\right.$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right]+\text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right]\right)$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-9 a^2 b^2+3 b^4\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{3 b \left(3 a^2-b^2\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2}-\frac{b \text{Sin}[c+d x]}{2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+\frac{-7 a^2 b \text{Sin}[c+d x]+b^3 \text{Sin}[c+d x]}{4 a \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{\left(5 a^2+b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a \left(a^2-b^2\right)^2 d}+$$

$$\frac{3 \left(a^2+b^2\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 b \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(3 a^4+10 a^2 b^2-b^4\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a (a-b)^2 b (a+b)^3 d}-$$

$$\frac{b \text{Sin}[c+d x]}{2 \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}-\frac{b \left(5 a^2+b^2\right) \text{Sin}[c+d x]}{4 a \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16\,a\,(a-b)^2\,(a+b)^2\,d}\left(-\left(2\left(16\,a^3+8\,a\,b^2\right)\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right.\right.$$

$$\left.\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(-9\,a^2\,b+3\,b^3\right)\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}\left(5\,a^2\,b+b^3\right)\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{\left(5\,a^2+b^2\right)\text{Sin}[c+d\,x]}{4\,a\,\left(a^2-b^2\right)^2}+\frac{a\,\text{Sin}[c+d\,x]}{2\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{3\left(a^2\,\text{Sin}[c+d\,x]+b^2\,\text{Sin}[c+d\,x]\right)}{4\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{\left(a^2+5\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,b\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{a\,\left(a^2-7\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,b^2\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(a^4-10\,a^2\,b^2-3\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^2\,(a+b)^3\,d}+$$

$$\frac{a\,\text{Sin}[c+d\,x]}{2\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(a^2+5\,b^2\right)\text{Sin}[c+d\,x]}{4\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$-\frac{1}{16\,(a-b)^2\,(a+b)^2\,d}\left(-\frac{48\,a\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)}+\right.$$

$$\left(2\,\left(-5\,a^2-b^2\right)\,\mathrm{Cos}[c+d\,x]^2\,\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)\right.$$

$$\left.(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(2-\mathrm{Sec}[c+d\,x]^2\right)}\left(a^2+5\,b^2\right)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{\left(a^2+5\,b^2\right)\,\mathrm{Sin}[c+d\,x]}{4\,b\,\left(-a^2+b^2\right)^2}-\frac{a^2\,\mathrm{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{a^3\,\mathrm{Sin}[c+d\,x]-7\,a\,b^2\,\mathrm{Sin}[c+d\,x]}{4\,b\,\left(a^2-b^2\right)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$-\frac{3\,a\,\left(a^2-3\,b^2\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^2\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(3\,a^4-5\,a^2\,b^2+8\,b^4\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^3\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{3\,a\,\left(a^4-2\,a^2\,b^2+5\,b^4\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^3\,(a+b)^3\,d}-$$

$$\frac{a^2\,\mathrm{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{3\,a\,\left(a^2-3\,b^2\right)\,\mathrm{Sin}[c+d\,x]}{4\,b\,\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{16\,(a-b)^2\,b\,(a+b)^2\,d}\left(-\left(2\left(-8a^2b-16b^3\right)\mathrm{Cos}[c+dx]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right](b+a\,\mathrm{Sec}[c+dx])\sqrt{1-\mathrm{Sec}[c+dx]^2}\right.\right.$$

$$\left.\mathrm{Sin}[c+dx]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\right)+$$

$$\left(2\left(a^3+5ab^2\right)\mathrm{Cos}[c+dx]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\right)\right.$$

$$\left.(b+a\,\mathrm{Sec}[c+dx])\sqrt{1-\mathrm{Sec}[c+dx]^2}\,\mathrm{Sin}[c+dx]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\right)+$$

$$\frac{1}{ab^2\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\sqrt{\mathrm{Sec}[c+dx]}\left(2-\mathrm{Sec}[c+dx]^2\right)}\left(3a^3-9ab^2\right)\mathrm{Cos}[2(c+dx)]$$

$$(b+a\,\mathrm{Sec}[c+dx])\left(-4ab+4ab\,\mathrm{Sec}[c+dx]^2-4ab\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\right.$$

$$\sqrt{1-\mathrm{Sec}[c+dx]^2}+2(2a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}+$$

$$4a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}-$$

$$\left.2b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}\right)\mathrm{Sin}[c+dx]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+dx]}\left(\frac{3a\left(a^2-3b^2\right)\mathrm{Sin}[c+dx]}{4b^2\left(a^2-b^2\right)^2}+\frac{a^3\,\mathrm{Sin}[c+dx]}{2b^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}+\frac{-5a^4\,\mathrm{Sin}[c+dx]+11a^2b^2\,\mathrm{Sin}[c+dx]}{4b^2\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]^{7/2},\,x,\,7,\,0\right\}$$

$$-\frac{1}{15a^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}2(a+b)\left(9a^2-2b^2\right)\sqrt{\mathrm{Cos}[c+dx]}\sqrt{1+\mathrm{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+dx]}+$$

$$\frac{1}{15ad\sqrt{a+b\,\mathrm{Cos}[c+dx]}}2\left(9a^2+7ab-2b^2\right)\sqrt{\mathrm{Cos}[c+dx]}\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+dx]}+\frac{2b\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{15ad}+$$

$$\frac{2\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{5d}+\frac{2\left(9a^2-2b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{15a^2d}$$

$$\frac{1}{15\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\left(\frac{1}{\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\left(-2\,\left(9\,a^3+9\,a^2\,b-2\,a\,b^2-2\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,a\,\left(9\,a^2+7\,a\,b-2\,b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(9\,a^2-2\,b^2\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+\right.$$

$$\left.(a+b\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\left(9\,a^2-2\,b^2\right)\,\mathrm{Sin}[c+d\,x]+a\,(b+3\,a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2},\,x,\,5,\,0\right\}$$

$$-\frac{2\,(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{1}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\left(\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]+\frac{-(a+b)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\left(\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 7,\ 0\right\}$$

$$\frac{(a+b)\sqrt{\mathrm{Cos}[c+d\,x]}\sqrt{1+\mathrm{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\sqrt{\mathrm{Cos}[c+d\,x]}\sqrt{1+\mathrm{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\sqrt{\mathrm{Cos}[c+d\,x]}\sqrt{1+\mathrm{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\Bigg(\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\sqrt{1+\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(8\,(a+b)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-$$

$$16\,a\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-$$

$$12\,a\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-$$

$$4\,a\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-$$

$$2\,a\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,b\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,a\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-b\,\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+b\,\mathrm{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(16\,d\left(\frac{1}{1+\mathrm{Cos}[c+d\,x]}\right)^{3/2}\sqrt{\mathrm{Sec}[c+d\,x]}\Bigg(\frac{1}{32\left(\frac{1}{1+\mathrm{Cos}[c+d\,x]}\right)^{3/2}(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}\,b\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\sqrt{1+\mathrm{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\left(8\,(a+b)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\right.\right.$$

$$\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-16\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-12\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.2\,a\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,b\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,a\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-b\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+b\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{32\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,3\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\sqrt{1+\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]$$

$$\left(8\,(a+b)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\right.\right.$$

$$\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-16\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-12\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.2\,a\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,b\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,a\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-b\,\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]+b\,\text{Sin}\left[\frac{5}{2}\,(c+d\,x)\right]\right)+$$

$$\frac{1}{32\left(\frac{1}{1+\text{Cos}[c+d x]}\right)^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}}5\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{1+\text{Sec}[c+d x]}\left(8(a+b)\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\right.$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$16\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$12\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-4\,a\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{Cos}\left[\frac{3}{2}(c+d x)\right]\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-2\,a\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.2\,b\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+2\,a\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]-b\,\text{Sin}\left[\frac{3}{2}(c+d x)\right]+b\,\text{Sin}\left[\frac{5}{2}(c+d x)\right]\right)\text{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$\frac{1}{16\left(\frac{1}{1+\text{Cos}[c+d x]}\right)^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}}\text{Sec}\left[\frac{1}{2}(c+d x)\right]^5\sqrt{1+\text{Sec}[c+d x]}\left(-a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]+b\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\right.$$

$$3\,a\,\text{Cos}\left[\frac{3}{2}(c+d x)\right]-\frac{3}{2}b\,\text{Cos}\left[\frac{3}{2}(c+d x)\right]+\frac{5}{2}b\,\text{Cos}\left[\frac{5}{2}(c+d x)\right]-12(a+b)\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]+24\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$6\,a\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}(c+d x)\right]+\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}4(a+b)\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{8\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}-$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}6\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\;\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}2\,a\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\;\text{Cos}\left[\frac{3}{2}(c+d x)\right]$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}4\,(a+b)\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])^2}\right)-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}$$

$$8\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]^3\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])^2}\right)-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}$$

$$6\,a\,\text{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\;\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])^2}\right)-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}$$

$$2\,a\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\;\text{Cos}\left[\frac{3}{2}(c+d x)\right]\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+$$

$$6\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]-\frac{8\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{6\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{2\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{4\,(a+b)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{32\left(\frac{1}{1+\text{Cos}[c+d\,x]}\right)^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{1+\text{Sec}[c+d\,x]}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^5\text{Sec}[c+d\,x]\left(8\,(a+b)\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\right.$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$16\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^3\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$12\,a\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{Cos}\left[\frac{3}{2}(c+d\,x)\right]\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-2\,a\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$\left.\left.2\,b\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+2\,a\,\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]-b\,\text{Sin}\left[\frac{3}{2}(c+d\,x)\right]+b\,\text{Sin}\left[\frac{5}{2}(c+d\,x)\right]\right)\text{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,b\,(a+b)\left(41\,a^2-3\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{105\,a\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\left(25\,a^2+3\,b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a\,d}+\frac{16\,b\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+$$

$$\frac{2\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{4\,b\left(41\,a^2-3\,b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\ \text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{105\,a^2\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{4\,b\left(-41\,a^2+3\,b^2\right)\text{Sin}[c+d\,x]}{105\,a^2}+\right.$$

$$\left.\frac{2\,\text{Sec}[c+d\,x]\left(25\,a^2\,\text{Sin}[c+d\,x]+3\,b^2\,\text{Sin}[c+d\,x]\right)}{105\,a}+\frac{16}{35}\,b\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]+\frac{2}{7}\,a\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\right)+$$

$$\left(4\left(-\frac{82\,a\,b}{105\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,b^3}{35\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{5\,a^2\sqrt{\text{Sec}[c+d\,x]}}{21\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{31\,b^2\sqrt{\text{Sec}[c+d\,x]}}{105\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^4\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{82\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^4\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\Bigg)$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\Bigg(2\,b\,\left(-41\,a^3-41\,a^2\,b+3\,a\,b^2+3\,b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\left(-41\,a^2+3\,b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\Bigg(\frac{1}{105\,a^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]\,\Bigg(2\,b\,\left(-41\,a^3-41\,a^2\,b+3\,a\,b^2+3\,b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\left(-41\,a^2+3\,b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,\left(-41\,a^3-41\,a^2\,b+3\,a\,b^2+3\,b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(-41\,a^2+3\,b^2\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,4\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}$$

$$\Bigg(\frac{1}{2}\,b\left(-41\,a^2+3\,b^2\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,b\left(-41\,a^3-41\,a^2\,b+3\,a\,b^2+3\,b^3\right)$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{2\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,a\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}$$

$$b\left(-41\,a^3-41\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+\frac{1}{2\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}$$

$$a\left(25\,a^3+82\,a^2\,b+51\,a\,b^2-6\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)-b^2\left(-41\,a^2+3\,b^2\right)\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-b\left(-41\,a^2+3\,b^2\right)(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$b\left(-41a^2+3b^2\right)\operatorname{Cos}[c+dx]\,(a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2+$$

$$\frac{a\left(25a^3+82a^2b+51ab^2-6b^3\right)\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{1-\frac{(-a+b)\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}+$$

$$\left.\frac{b\left(-41a^3-41a^2b+3ab^2+3b^3\right)\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\sqrt{1-\frac{(-a+b)\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\right)+$$

$$\frac{1}{105a^2\sqrt{a+b\operatorname{Cos}[c+dx]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Sec}[c+dx]}}$$

$$2\left(2b\left(-41a^3-41a^2b+3ab^2+3b^3\right)\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+a\left(25a^3+82a^2b+51ab^2-6b^3\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.b\left(-41a^2+3b^2\right)\operatorname{Cos}[c+dx]\,(a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right)$$

$$\left.\left.\left(-\operatorname{Cos}\left[\frac{1}{2}(c+dx)\right]\operatorname{Sec}[c+dx]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]+\operatorname{Cos}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Sec}[c+dx]\operatorname{Tan}[c+dx]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\operatorname{Cos}[c+dx])^{3/2}\operatorname{Sec}[c+dx]^{7/2},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{5ad\sqrt{a+b\operatorname{Cos}[c+dx]}}2(a+b)\left(3a^2+b^2\right)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{1+\operatorname{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\operatorname{Sec}[c+dx]}+$$

$$\frac{1}{5d\sqrt{a+b\operatorname{Cos}[c+dx]}}2\left(3a^2+4ab+b^2\right)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{1+\operatorname{Cos}[c+dx]}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\operatorname{Sec}[c+dx]}+\frac{4b\sqrt{a+b\operatorname{Cos}[c+dx]}\operatorname{Sec}[c+dx]^{3/2}\operatorname{Sin}[c+dx]}{5d}+$$

$$\frac{2a\sqrt{a+b\operatorname{Cos}[c+dx]}\operatorname{Sec}[c+dx]^{5/2}\operatorname{Sin}[c+dx]}{5d}+\frac{2\left(3a^2+b^2\right)\sqrt{a+b\operatorname{Cos}[c+dx]}\sqrt{\operatorname{Sec}[c+dx]}\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]}{5ad}$$

$$\frac{1}{5\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\left(\frac{1}{\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\right.$$

$$\left(-2\,\left(3\,a^3+3\,a^2\,b+a\,b^2+b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$2\,a\,\left(3\,a^2+4\,a\,b+b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(3\,a^2+b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+$$

$$\left.(a+b\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\left(3\,a^2+b^2\right)\,\text{Sin}[c+d\,x]+a\,(2\,b+a\,\text{Sec}[c+d\,x])\,\text{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2},\,x,\,6,\,0\right\}$$

$$-\frac{8\,b\,(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(a^2+4\,a\,b+3\,b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{8\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{8}{3}\,b\,\text{Sin}[c+d\,x]+\frac{2}{3}\,a\,\text{Tan}[c+d\,x]\right)}{d}+$$

$$\left(4\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\left(-\frac{4\,a\,b}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\left.\frac{a^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{4\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\,\text{Sec}[c+d\,x]$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\Bigg)\Bigg/$$

$$\Bigg(3\,d\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{1+\text{Sec}[c+d\,x]}$$

$$\Bigg(-\frac{1}{3\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{1+\text{Sec}[c+d\,x]}}4\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)+$$

$$\frac{1}{3\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{1+\text{Sec}[c+d\,x]}}4\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]$$

$$\Bigg(b\,(a+b\,\text{Cos}[c+d\,x])\left(\frac{1}{2}\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\frac{3}{2}\,\text{Cos}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$\frac{2\,b\,(a+b)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}+$$

$$\frac{\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{2\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-$$

$$\frac{2\,b\,(a+b)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}+$$

$$\frac{\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{2\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$-b^2\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\,\mathrm{Sin}[c+d\,x]\left(\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)+$$

$$\frac{3}{2}\,b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\frac{\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\,\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{2\,b\,(a+b)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)-$$

$$\frac{1}{3\,\sqrt{\frac{1}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,(1+\mathrm{Sec}[c+d\,x])^{3/2}}\,2\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]^2$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\text{Tan}[c+d\,x]+$$

$$\frac{1}{3\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{1+\text{Sec}[c+d\,x]}}\,2\,b\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\text{Tan}[c+d\,x]-$$

$$\frac{1}{3\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Sec}[c+d\,x]}}\,2\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\text{Tan}[c+d\,x]+$$

$$\frac{1}{3\sqrt{\frac{1}{1+\text{Cos}[c+d\,x]}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Sec}[c+d\,x]}}\,4\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]$$

$$\left(-4\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left(a^2+4\,a\,b+3\,b^2\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\left.b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^3\left(\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]\right)\right)\text{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{11/2},\,x,\,9,\,0\right\}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{315\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(147\,a^4+261\,a^3\,b+279\,a^2\,b^2+155\,a\,b^3-10\,b^4\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,b\,\left(163\,a^2+5\,b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a\,d}+$$

$$\frac{2\,\left(49\,a^2+75\,b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,d}+$$

$$\frac{38\,a\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}+$$

$$\frac{2\,\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^2\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(\frac{2\,\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\text{Sin}[c+d\,x]}{315\,a^2}+\frac{2}{315}\,\text{Sec}[c+d\,x]^2\,\left(49\,a^2\,\text{Sin}[c+d\,x]+75\,b^2\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{2\,\mathrm{Sec}[c+d\,x]\,\left(163\,a^2\,b\,\mathrm{Sin}[c+d\,x]+5\,b^3\,\mathrm{Sin}[c+d\,x]\right)}{315\,a}+\frac{38}{63}\,a\,b\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]+\frac{2}{9}\,a^2\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]\Bigg)+$$

$$\Bigg(2\,\Bigg(-\frac{7\,a^3}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{31\,a\,b^2}{35\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,b^4}{63\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{38\,a^2\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{124\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{315\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^5\,\sqrt{\mathrm{Sec}[c+d\,x]}}{63\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{7\,a^2\,b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{31\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{35\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^5\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{63\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\Bigg)\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(-2\,\left(147\,a^5+147\,a^4\,b+279\,a^3\,b^2+279\,a^2\,b^3-10\,a\,b^4-10\,b^5\right)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(147\,a^4+261\,a^3\,b+279\,a^2\,b^2+155\,a\,b^3-10\,b^4\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(315\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(\frac{1}{315\,a^2\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]$$

$$\Bigg(-2\,\left(147\,a^5+147\,a^4\,b+279\,a^3\,b^2+279\,a^2\,b^3-10\,a\,b^4-10\,b^5\right)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(147\,a^4+261\,a^3\,b+279\,a^2\,b^2+155\,a\,b^3-10\,b^4\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{315\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-2\,\left(147\,a^5+147\,a^4\,b+279\,a^3\,b^2+279\,a^2\,b^3-10\,a\,b^4-10\,b^5\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(147\,a^4+261\,a^3\,b+279\,a^2\,b^2+155\,a\,b^3-10\,b^4\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+$$

$$\frac{1}{315\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(-\frac{1}{2}\,\left(147\,a^4+279\,a^2\,b^2-10\,b^4\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\right.$$

$$\left(147\,a^5+147\,a^4\,b+279\,a^3\,b^2+279\,a^2\,b^3-10\,a\,b^4-10\,b^5\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,a\,\left(147\,a^4+261\,a^3\,b+279\,a^2\,b^2+155\,a\,b^3-10\,b^4\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}\left(147 a^5+147 a^4 b+279 a^3 b^2+279 a^2 b^3-10 a b^4-10 b^5\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}}a\left(147 a^4+261 a^3 b+279 a^2 b^2+155 a b^3-10 b^4\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])^2}\right)+$$

$$b\left(147 a^4+279 a^2 b^2-10 b^4\right)\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Sin}[c+d x]\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left(147 a^4+279 a^2 b^2-10 b^4\right)(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Sin}[c+d x]\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$\left(147 a^4+279 a^2 b^2-10 b^4\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{a\left(147 a^4+261 a^3 b+279 a^2 b^2+155 a b^3-10 b^4\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\frac{1}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(147 a^5+147 a^4 b+279 a^3 b^2+279 a^2 b^3-10 a b^4-10 b^5\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{315 a^2\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}}$$

$$\left(-2\left(147a^5+147a^4b+279a^3b^2+279a^2b^3-10ab^4-10b^5\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(147a^4+261a^3b+279a^2b^2+155ab^3-10b^4\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(147a^4+279a^2b^2-10b^4\right)\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}[c+dx]\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]\,\text{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{21ad\sqrt{a+b\,\text{Cos}[c+dx]}}2b(a+b)\left(29a^2+3b^2\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}+$$

$$\frac{1}{21d\sqrt{a+b\,\text{Cos}[c+dx]}}2\left(5a^3+29a^2b+27ab^2+3b^3\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}+$$

$$\frac{2\left(5a^2+9b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{21d}+\frac{6ab\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{7d}+$$

$$\frac{2a^2\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{7/2}\,\text{Sin}[c+dx]}{7d}+\frac{2b\left(29a^2+3b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{21ad}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2b\left(29a^2+3b^2\right)\text{Sin}[c+dx]}{21a}+\right.$$

$$\left.\frac{2}{21}\text{Sec}[c+dx]\left(5a^2\,\text{Sin}[c+dx]+9b^2\,\text{Sin}[c+dx]\right)+\frac{6}{7}ab\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]+\frac{2}{7}a^2\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]\right)+$$

$$\left(2\left(-\frac{29\,a^2\,b}{21\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{b^3}{7\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\,a^3\sqrt{\mathrm{Sec}[c+d\,x]}}{21\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\right.\right.$$

$$\frac{2\,a\,b^2\sqrt{\mathrm{Sec}[c+d\,x]}}{21\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^4\sqrt{\mathrm{Sec}[c+d\,x]}}{7\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{29\,a\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{21\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\frac{b^4\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{7\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left(-2\,b\,\left(29\,a^3+29\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(5\,a^3+29\,a^2\,b+27\,a\,b^2+3\,b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.b\,\left(29\,a^2+3\,b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(21\,a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(\frac{1}{21\,a\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\,\left(-2\,b\,\left(29\,a^3+29\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(5\,a^3+29\,a^2\,b+27\,a\,b^2+3\,b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.b\,\left(29\,a^2+3\,b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{21\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-2\,b\,\left(29\,a^3+29\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(5\,a^3+29\,a^2\,b+27\,a\,b^2+3\,b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$b\,\left(29\,a^2+3\,b^2\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{21\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\Bigg(-\frac{1}{2}\,b\,\left(29\,a^2+3\,b^2\right)\,\mathrm{Cos}[c+d\,x]$$

$$(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,b\,\left(29\,a^3+29\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$a\,\left(5\,a^3+29\,a^2\,b+27\,a\,b^2+3\,b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$b\,\left(29\,a^3+29\,a^2\,b+3\,a\,b^2+3\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$a\left(5a^3+29a^2b+27ab^2+3b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}+\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sin}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])^2}\right)+b^2\left(29a^2+3b^2\right)\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2$$

$$\text{Sin}[c+dx]\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+b\left(29a^2+3b^2\right)(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Sin}[c+dx]\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]-$$

$$b\left(29a^2+3b^2\right)\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2+$$

$$\frac{a\left(5a^3+29a^2b+27ab^2+3b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}-$$

$$\left.\frac{b\left(29a^3+29a^2b+3ab^2+3b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\right)+$$

$$\frac{1}{21a\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}}$$

$$\left(-2b\left(29a^3+29a^2b+3ab^2+3b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(5a^3+29a^2b+27ab^2+3b^3\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.b\left(29a^2+3b^2\right)\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}(c+dx)\right]\text{Sec}[c+dx]\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]+\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]\,\text{Tan}[c+dx]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{7/2},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(9\,a^2+23\,b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(9\,a^3+17\,a^2\,b+23\,a\,b^2+15\,b^3\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{22\,a\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(9\,a^2+23\,b^2\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2}{15}\,\left(9\,a^2+23\,b^2\right)\,\text{Sin}[c+d\,x]+\frac{22}{15}\,a\,b\,\text{Tan}[c+d\,x]+\frac{2}{5}\,a^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)}{d}+$$

$$\left(2\,\left(-\frac{3\,a^3}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{23\,a\,b^2}{15\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{8\,a^2\,b\,\sqrt{\text{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\right.\right.$$

$$\left.\frac{8\,b^3\,\sqrt{\text{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{3\,a^2\,b\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{23\,b^3\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)$$

$$\left(2\,\left(9\,a^3+9\,a^2\,b+23\,a\,b^2+23\,b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-2\,\left(9\,a^3+17\,a^2\,b+23\,a\,b^2+15\,b^3\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\left.\left(9\,a^2+23\,b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\right.$$

$$\left(-\frac{1}{15\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^2}\,2\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left(2\left(9a^3+9a^2b+23ab^2+23b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.\right.$$

$$\left.\frac{-a+b}{a+b}\right]-2\left(9a^3+17a^2b+23ab^2+15b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\right.\right.$$

$$\left.\left.\left.\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+\left(9a^2+23b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)+$$

$$\left(b\,\mathrm{Sin}[c+d\,x]\left(2\left(9a^3+9a^2b+23ab^2+23b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-2\left(9a^3+17a^2b+23ab^2+15b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.\left.\left(9a^2+23b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)-$$

$$\left(\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(2\left(9a^3+9a^2b+23ab^2+23b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-2\left(9a^3+17a^2b+23ab^2+15b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.\left.\left(9a^2+23b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)+$$

$$\left(2\left(\frac{1}{2}\left(9\,a^2+23\,b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\left(9\,a^3+9\,a^2\,b+23\,a\,b^2+23\,b^3\right)\right.\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\left(9\,a^3+17\,a^2\,b+23\,a\,b^2+15\,b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\left(9\,a^3+9\,a^2\,b+23\,a\,b^2+23\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$\left(9\,a^3+17\,a^2\,b+23\,a\,b^2+15\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-b\left(9\,a^2+23\,b^2\right)\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\left(9\,a^2+23\,b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$\left(9\,a^2+23\,b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-$$

$$\frac{\left(9\,a^3+17\,a^2\,b+23\,a\,b^2+15\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{\left(9 a^3+9 a^2 b+23 a b^2+23 b^3\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\Bigg)\Bigg)\Bigg/$$

$$\left(15 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)-$$

$$\Bigg(\Bigg(2\left(9 a^3+9 a^2 b+23 a b^2+23 b^3\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]-2\left(9 a^3+17 a^2 b+23 a b^2+15 b^3\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\right.\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+\left(9 a^2+23 b^2\right) \text{Cos}[c+d x](a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}[c+d x] \text{Sin}\left[\frac{1}{2}(c+d x)\right]+\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x] \text{Tan}[c+d x]\right)\Bigg)\Bigg/$$

$$\left(15 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]\right)^{3/2}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^{5/2} \text{Sec}[c+d x]^{5/2}, x, 8, 0\right\}$$

$$-\frac{14 a b (a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{3 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{1}{3 d \sqrt{a+b \text{Cos}[c+d x]}} 2\left(a^3+7 a^2 b+9 a b^2-3 b^3\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}+$$

$$\frac{4 b^3 \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 a^2 \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 d}+\frac{14 a b \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 d}$$

$$\Bigg(2\Bigg(7\,a\,b\,(a+b)\,\text{EllipticE}\Big[\text{ArcSin}\Big[\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]\Big],\frac{-a+b}{a+b}\Big]\sqrt{1-\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}\Big(1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)\sqrt{\frac{a+b+a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2-b\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}{a+b}}-$$

$$\left(a^3+7\,a^2\,b+9\,a\,b^2-3\,b^3\right)\text{EllipticF}\Big[\text{ArcSin}\Big[\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]\Big],\frac{-a+b}{a+b}\Big]\sqrt{1-\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}\Big(1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2-b\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}{a+b}}+b\Bigg(6\,b^2\,\text{EllipticPi}\Big[-1,-\text{ArcSin}\Big[\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]\Big],\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}\Big(1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)\sqrt{\frac{a+b+a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2-b\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}{a+b}}+$$

$$7\,a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]\Big(a-a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^4+b\Big(-1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)^2\Big)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,d\sqrt{\frac{1}{1-\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}}\Big(-1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)\Big(1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2\Big)^{3/2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2-b\,\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}{1+\text{Tan}\Big[\frac{1}{2}(c+d\,x)\Big]^2}}\Bigg)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\Big(\frac{14}{3}\,a\,b\,\text{Sin}[c+d\,x]+\frac{2}{3}\,a^2\,\text{Tan}[c+d\,x]\Big)}{d}$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2},\,x,\,8,\,0\right\}$$

$$-\frac{1}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(2\,a^2-b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,a\left(a^2+3\,a\,b-3\,b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{10\,a\,b^2\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d}-\frac{\left(2\,a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{2\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{d}+$$

$$\frac{1}{d\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(-2\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$2\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+2\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-2\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-10\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-10\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$\left(2\,a^3+2\,a^2\,b-a\,b^2-b^3\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\left(a^2+3\,a\,b-3\,b^2\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{24\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(33\,a^2+16\,b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ -$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}a\left(24\,a^2-13\,a\,b+38\,b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}5\,a\left(a^2+4\,b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +\ \frac{b^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}\ +$$

$$\frac{13\,a\,b\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{12\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{\left(33\,a^2+16\,b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,b^2\,\mathrm{Sin}[c+d\,x]+\frac{13}{24}\,a\,b\,\mathrm{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b^2\,\mathrm{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\frac{1}{24\,d\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\,\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(33\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+33\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-66\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$32\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-33\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+33\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$16\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-30\,a^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-120\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-120\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$\left(33\,a^3+33\,a^2\,b+16\,a\,b^2+16\,b^3\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$2\,a\left(24\,a^2-13\,a\,b+38\,b^2\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}}{\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,10,\,0\right\}$$

$$\frac{1}{192\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\, a\,(a+b)\,\left(15\,a^2+284\,b^2\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{96\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(59\,a^3-322\,a^2\,b+36\,a\,b^2-72\,b^3\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;-$$

$$\frac{1}{32\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(5\,a^4-120\,a^2\,b^2-48\,b^4\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{b^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{4\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{17\,a\,b\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{24\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\left(59\,a^2+36\,b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{96\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{a\,\left(15\,a^2+284\,b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{17}{96}\,a\,b\,\mathrm{Sin}[c+d\,x]+\frac{1}{192}\left(59\,a^2+48\,b^2\right)\mathrm{Sin}[2\,(c+d\,x)]+\frac{17}{96}\,a\,b\,\mathrm{Sin}[3\,(c+d\,x)]+\frac{1}{32}\,b^2\,\mathrm{Sin}[4\,(c+d\,x)]\right)+$$

$$\Bigg(-15\,a^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,a^3\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-284\,a^2\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-284\,a\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$30\,a^3\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+568\,a\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+15\,a^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^3\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$284\,a^2\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-284\,a\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-30\,a^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\;\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$720\,a^2\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+288\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+720\,a^2\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$288\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$a\left(15\,a^3+15\,a^2\,b+284\,a\,b^2+284\,b^3\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\left(-59\,a^3+322\,a^2\,b-36\,a\,b^2+72\,b^3\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)\Bigg/$$

$$\left(192\,b\,d\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]^{5/2}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\ x,\ 6,\ 0\right\}$$

$$\frac{4\,b\,(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a-2\,b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{4\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(-\frac{4\,b\,\text{Sin}[c+d\,x]}{3\,a^2}+\frac{2\,\text{Tan}[c+d\,x]}{3\,a}\right)}{d}+$$

$$\left(4\left(\frac{2\,b}{3\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\right.\right.$$

$$\left.\frac{2\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(2\,b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(a-2\,b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\left.b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/\Bigg(3\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}$$

$$\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(\frac{1}{3\,a^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\right.$$

$$\text{Sin}[c+d\,x]\,\left(2\,b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(a-2b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$a\,(a-2b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+\frac{1}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$4\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\Bigg(\frac{1}{2}\,b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$\frac{b\,(a+b)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}+$$

$$\frac{a\,(a-2b)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)}{2\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}+$$

$$\frac{b\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}+$$

$$\frac{a\,(a-2\,b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{2\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}-$$

$$b^2\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+\frac{a\,(a-2\,b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$2\left(2\,b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(a-2\,b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{3/2}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d}$$

$$\frac{2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,d}-$$

$$\left(2\left(-\frac{1}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{b\,\sqrt{\text{Sec}[c+d\,x]}}{a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\right.$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(2\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,a\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\left.\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(-\frac{1}{a\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\right.\right.$$

$$\text{Sin}[c+d\,x]\left(2\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,a\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\operatorname{Cos}[c+d x]\,(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{a\sqrt{a+b\operatorname{Cos}[c+d x]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\,\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(2(a+b)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-\right.$$

$$2a\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.\operatorname{Cos}[c+d x]\,(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)-\frac{1}{a\sqrt{a+b\operatorname{Cos}[c+d x]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$2\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\left(\frac{1}{2}\operatorname{Cos}[c+d x]\,(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4+\right.$$

$$\frac{(a+b)\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}-$$

$$\frac{a\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}+$$

$$\frac{(a+b)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)}{\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}-$$

$$\frac{a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}-$$

$$b\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)-$$

$$\frac{1}{a\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$\left(2\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-\right.$$

$$2\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]+$$

$$\left.\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sec}[c+d\,x]^{3/2}},\ x,\ 5,\ 0\right\}$$

$$\frac{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{b\,d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{2\,a\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{b\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{b\,d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{b\,d\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}$$

$$\left(2(a+b)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$4\,a\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{5/2}}{(a+b\,\text{Cos}[c+d x])^{3/2}},x,7,0\right\}$$

$$\frac{2\,b\,(5\,a^2-8\,b^2)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{3\,a^3\,(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\left(2\,(a^2-6\,a\,b+8\,b^2)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}\right)\Big/\left(3\,a^2\,(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}\right)+$$

$$\frac{2\,b^2\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{a\,(a^2-b^2)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+\frac{2\,(a^2-4\,b^2)\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3\,a^2\,(a^2-b^2)\,d}-$$

$$\frac{2\,b\,(5\,a^2-8\,b^2)\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3\,a^3\,(a^2-b^2)\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{2\,b\,\left(5\,a^2-8\,b^2\right)\,\mathrm{Sin}[c+d\,x]}{3\,a^3\,\left(a^2-b^2\right)}-\frac{2\,b^3\,\mathrm{Sin}[c+d\,x]}{a^2\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}+\frac{2\,\mathrm{Tan}[c+d\,x]}{3\,a^2}\right)}{d}+$$

$$\left(2\left(\frac{5\,b}{3\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,b^3}{3\,a^2\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{a\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{7\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^3\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\left.\frac{5\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^3\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\left(-2\,b\,\left(-5\,a^3-5\,a^2\,b+8\,a\,b^2+8\,b^3\right)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(a^3-5\,a^2\,b+2\,a\,b^2+8\,b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.b\,\left(-5\,a^2+8\,b^2\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(3\,a^3\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(\frac{1}{3\,a^3\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\,\left(-2\,b\,\left(-5\,a^3-5\,a^2\,b+8\,a\,b^2+8\,b^3\right)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(a^3-5\,a^2\,b+2\,a\,b^2+8\,b^3\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.b\,\left(-5\,a^2+8\,b^2\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{3 a^3 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2 b \left(-5 a^3-5 a^2 b+8 a b^2+8 b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a \left(a^3-5 a^2 b+2 a b^2+8 b^3\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.b \left(-5 a^2+8 b^2\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{3 a^3 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \left(-\frac{1}{2} b \left(-5 a^2+8 b^2\right) \operatorname{Cos}[c+d x]\right.$$

$$(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}} b \left(-5 a^3-5 a^2 b+8 a b^2+8 b^3\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}$$

$$a \left(a^3-5 a^2 b+2 a b^2+8 b^3\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}} b \left(-5 a^3-5 a^2 b+8 a b^2+8 b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}} a \left(a^3-5 a^2 b+2 a b^2+8 b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+b^2\left(-5\,a^2+8\,b^2\right)\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\left(-5\,a^2+8\,b^2\right)(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$b\left(-5\,a^2+8\,b^2\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\left(a^3-5\,a^2\,b+2\,a\,b^2+8\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{b\left(-5\,a^3-5\,a^2\,b+8\,a\,b^2+8\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\left(\left(-2\,b\left(-5\,a^3-5\,a^2\,b+8\,a\,b^2+8\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.\right.\right.$$

$$\left.\frac{-a+b}{a+b}\right]+2\,a\left(a^3-5\,a^2\,b+2\,a\,b^2+8\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\right.\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-b\left(-5\,a^2+8\,b^2\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\Big/$$

$$\left.\left.\left(3\,a^3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d\,x]^{3/2}}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,6,\,0\right\}$$

$$-\frac{2\left(a^2-2\,b^2\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a-2\,b)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b^2\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\left(a^2-2\,b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\left(a^2-b^2\right)d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{2\,(a^2-2\,b^2)\,\mathrm{Sin}[c+d\,x]}{a^2\,(a^2-b^2)}+\frac{2\,b^2\,\mathrm{Sin}[c+d\,x]}{a\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}+$$

$$\left(2\left(-\frac{a}{(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,b^2}{a\,(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{2\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\left.\frac{2\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,(a^2-b^2)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left(-2\,(a^3+a^2\,b-2\,a\,b^2-2\,b^3)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$2\,a\,(a^2-a\,b-2\,b^2)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.(a^2-2\,b^2)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(a^2\,(a^2-b^2)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(\frac{1}{a^2\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\,\left(-2\,(a^3+a^2\,b-2\,a\,b^2-2\,b^3)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,a\,(a^2-a\,b-2\,b^2)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.(a^2-2\,b^2)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{a^2\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left(-2\left(a^3+a^2\,b-2\,a\,b^2-2\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.\right.$$

$$\left.\frac{-a+b}{a+b}\right]+2\,a\left(a^2-a\,b-2\,b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.$$

$$\left.\left.\frac{-a+b}{a+b}\right]-\left(a^2-2\,b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)+$$

$$\frac{1}{a^2\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}}\,2\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\left(-\frac{1}{2}\left(a^2-2\,b^2\right)\mathrm{Cos}[c+d\,x]\right.$$

$$(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4-\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\left(a^3+a^2\,b-2\,a\,b^2-2\,b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{a\left(a^2-a\,b-2\,b^2\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\left(a^3+a^2\,b-2\,a\,b^2-2\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{a\left(a^2-a\,b-2\,b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$+ b \left(a^2 - 2 b^2\right) \operatorname{Cos}[c + d x] \operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Sin}[c + d x] \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right] + \left(a^2 - 2 b^2\right)$$

$$(a + b \operatorname{Cos}[c + d x]) \operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Sin}[c + d x] \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right] - \left(a^2 - 2 b^2\right) \operatorname{Cos}[c + d x] (a + b \operatorname{Cos}[c + d x])$$

$$\operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]^2 + \frac{a \left(a^2 - a b - 2 b^2\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2}{\sqrt{1 - \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]^2} \sqrt{1 - \frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}} -$$

$$\left.\frac{\left(a^3 + a^2 b - 2 a b^2 - 2 b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \sqrt{1 - \frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}{\sqrt{1 - \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]^2}}\right) +$$

$$\left(\left(-2 \left(a^3 + a^2 b - 2 a b^2 - 2 b^3\right) \sqrt{\frac{\operatorname{Cos}[c + d x]}{1 + \operatorname{Cos}[c + d x]}} \sqrt{\frac{a + b \operatorname{Cos}[c + d x]}{(a + b) (1 + \operatorname{Cos}[c + d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] + 2 a \left(a^2 - a b - 2 b^2\right) \sqrt{\frac{\operatorname{Cos}[c + d x]}{1 + \operatorname{Cos}[c + d x]}} \sqrt{\frac{a + b \operatorname{Cos}[c + d x]}{(a + b) (1 + \operatorname{Cos}[c + d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] - \left(a^2 - 2 b^2\right) \operatorname{Cos}[c + d x] (a + b \operatorname{Cos}[c + d x]) \operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]\right)\right.$$

$$\left.\left(-\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] \operatorname{Sec}[c + d x] \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]\right)\right) \Big/$$

$$\left.\left(a^2 \left(a^2 - b^2\right) \sqrt{a + b \operatorname{Cos}[c + d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2} (c + d x)\right]^2} \sqrt{\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \operatorname{Sec}[c + d x]}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a + b \operatorname{Cos}[c + d x])^{3/2} \operatorname{Sec}[c + d x]^{3/2}}, x, 7, 0\right\}$$

$$-\frac{2\,a\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\,a\,\mathrm{Sin}[c+d\,x]}{b\,(a^2-b^2)}-\frac{2\,a^2\,\mathrm{Sin}[c+d\,x]}{b\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}-$$

$$\Bigg(2\Bigg(-a^2\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]-a\,b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]+2\,a\,b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^3+a^2\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5-$$

$$a\,b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5-2\,a^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+2\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}-$$

$$2\,a^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+2\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}-$$

$$a\,(a+b)\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\left(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+b\,(a+b)\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\left(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}\Bigg)\Bigg)\Bigg/$$

$$\Bigg(b\,(a^2-b^2)\,d\sqrt{\frac{1}{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}}\left(-1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\right)\left(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\right)^{3/2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$\frac{\left(3 a^2-b^2\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{(a-b) b^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{2 a \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{(a-b) b d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{6 a \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{b^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{2 a^2 \text{Sin}[c+d x]}{b\left(a^2-b^2\right) d \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}+\frac{\left(3 a^2-b^2\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{b^2\left(a^2-b^2\right) d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{2\,a^2\,\mathrm{Sin}[c+d\,x]}{b^2\,(a^2-b^2)}+\frac{2\,a^3\,\mathrm{Sin}[c+d\,x]}{b^2\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}+$$

$$\frac{1}{b^2\,(-a^2+b^2)\,d\,\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\left(-3\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\right.$$

$$6\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+3\,a^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-a\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-6\,a^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+6\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$6\,a^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+6\,a\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$\left(3\,a^3+3\,a^2\,b-a\,b^2-b^3\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\,b\,(a+b)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\,x,\,8,\,0\right\}$$

$$\left(8 b \left(2 a^4-7 a^2 b^2+4 b^4\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3 a^4 (a-b)^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right) +$$

$$\left(2 \left(a^4-9 a^3 b+16 a^2 b^2+12 a b^3-16 b^4\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3 a^3 (a-b)^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right) +$$

$$\frac{2 b^2 \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^{3/2}} + \frac{4 b^2 \left(5 a^2-3 b^2\right) \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 a^2 \left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]}} +$$

$$\frac{2 \left(a^4-13 a^2 b^2+8 b^4\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 a^3 \left(a^2-b^2\right)^2 d} -$$

$$\frac{8 b \left(2 a^4-7 a^2 b^2+4 b^4\right) \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{3 a^4 \left(a^2-b^2\right)^2 d}$$

$$\frac{\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \left(-\frac{8 b \left(2 a^4-7 a^2 b^2+4 b^4\right) \text{Sin}[c+d x]}{3 a^4 \left(a^2-b^2\right)^2}-\frac{2 b^3 \text{Sin}[c+d x]}{3 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}-\frac{2 \left(11 a^2 b^3 \text{Sin}[c+d x]-7 b^5 \text{Sin}[c+d x]\right)}{3 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}+\frac{2 \text{Tan}[c+d x]}{3 a^3}\right)}{d} +$$

$$\left(4 \left(\frac{8 a b}{3 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}} - \frac{28 b^3}{3 a \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}} + \frac{16 b^5}{3 a^3 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}} + \frac{a^2 \sqrt{\text{Sec}[c+d x]}}{3 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} + \frac{5 b^2 \sqrt{\text{Sec}[c+d x]}}{\left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} - \frac{32 b^4 \sqrt{\text{Sec}[c+d x]}}{3 a^2 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} + \frac{16 b^6 \sqrt{\text{Sec}[c+d x]}}{3 a^4 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} + \frac{8 b^2 \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{3 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} - \frac{28 b^4 \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{3 a^2 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}} + \frac{16 b^6 \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{3 a^4 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]}}\right) \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\left(4 b \left(2 a^5+2 a^4 b-7 a^3 b^2-7 a^2 b^3+4 a b^4+4 b^5\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] + a \left(a^5-8 a^4 b+7 a^3 b^2+28 a^2 b^3-4 a b^4-16 b^5\right)\right.$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,b\,\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,a^4\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(\frac{1}{3\,a^4\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]$$

$$\Bigg(4\,b\,\left(2\,a^5+2\,a^4\,b-7\,a^3\,b^2-7\,a^2\,b^3+4\,a\,b^4+4\,b^5\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(a^5-8\,a^4\,b+7\,a^3\,b^2+28\,a^2\,b^3-4\,a\,b^4-16\,b^5\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,b\,\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{3\,a^4\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(4\,b\,\left(2\,a^5+2\,a^4\,b-7\,a^3\,b^2-7\,a^2\,b^3+4\,a\,b^4+4\,b^5\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(a^5-8\,a^4\,b+7\,a^3\,b^2+28\,a^2\,b^3-4\,a\,b^4-16\,b^5\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,b\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{3\,a^4\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,4\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(b\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$2\,b\left(2\,a^5+2\,a^4\,b-7\,a^3\,b^2-7\,a^2\,b^3+4\,a\,b^4+4\,b^5\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{2\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,a\left(a^5-8\,a^4\,b+7\,a^3\,b^2+28\,a^2\,b^3-4\,a\,b^4-16\,b^5\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,2\,b\left(2\,a^5+2\,a^4\,b-7\,a^3\,b^2-7\,a^2\,b^3+4\,a\,b^4+4\,b^5\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{2\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,a\left(a^5-8\,a^4\,b+7\,a^3\,b^2+28\,a^2\,b^3-4\,a\,b^4-16\,b^5\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-$$

$$2\,b^2\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$2\,b\left(2\,a^4-7\,a^2\,b^2+4\,b^4\right)(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\frac{2 b \left(2 a^4-7 a^2 b^2+4 b^4\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2+a \left(a^5-8 a^4 b+7 a^3 b^2+28 a^2 b^3-4 a b^4-16 b^5\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}{2 \sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}+$$

$$\frac{1}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}} 2 b \left(2 a^5+2 a^4 b-7 a^3 b^2-7 a^2 b^3+4 a b^4+4 b^5\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\left.\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}\right)+$$

$$\left(2 \left(4 b \left(2 a^5+2 a^4 b-7 a^3 b^2-7 a^2 b^3+4 a b^4+4 b^5\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}\right.\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]+a \left(a^5-8 a^4 b+7 a^3 b^2+28 a^2 b^3-4 a b^4-16 b^5\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$\left.2 b \left(2 a^4-7 a^2 b^2+4 b^4\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2} (c+d x)\right] \text{Sec}[c+d x] \text{Sin}\left[\frac{1}{2} (c+d x)\right]+\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x] \text{Tan}[c+d x]\right)\right) \Big/$$

$$\left.\left.\left(3 a^4 \left(a^2-b^2\right)^2 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^{5/2}}, x, 7, 0\right\}$$

$$-\left(2\left(3a^4-15a^2b^2+8b^4\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3-9a^2b-6ab^2+8b^3\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2b^2\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{8b^2\left(2a^2-b^2\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4-15a^2b^2+8b^4\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(3a^4-15a^2b^2+8b^4\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2}+\frac{2b^2\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\frac{8\left(2a^2b^2\,\text{Sin}[c+dx]-b^4\,\text{Sin}[c+dx]\right)}{3a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)}{d}+$$

$$\left(2\left(-\frac{a^2}{\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}+\frac{5b^2}{\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}-\right.\right.$$

$$\frac{8b^4}{3a^2\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}-\frac{3ab\sqrt{\text{Sec}[c+dx]}}{\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{17b^3\sqrt{\text{Sec}[c+dx]}}{3a\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}-\frac{8b^5\sqrt{\text{Sec}[c+dx]}}{3a^3\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}-\frac{ab\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\left.\left.\frac{5b^3\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{a\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}-\frac{8b^5\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{3a^3\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}}\right)\right)\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}$$

$$\left(-2\left(3a^5+3a^4b-15a^3b^2-15a^2b^3+8ab^4+8b^5\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(3a^4-6a^3b-15a^2b^2+2ab^3+8b^4\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3 a^3\left(a^2-b^2\right)^2 d \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\Bigg(\frac{1}{3 a^3\left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])^{3/2} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} b \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\ \operatorname{Sin}[c+d x]$$

$$\Bigg(-2\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)-$$

$$\frac{1}{3 a^3\left(a^2-b^2\right)^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\ \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(-2\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+$$

$$\frac{1}{3 a^3 \left(a^2-b^2\right)^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\Bigg(-\frac{1}{2}\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x] (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4 -$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}} a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}$$

$$\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}$$

$$a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+b\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x]$$

$$\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sin}[c+d x] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+\left(3 a^4-15 a^2 b^2+8 b^4\right)(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\operatorname{Sin}[c+d x] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-\left(3 a^4-15 a^2 b^2+8 b^4\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2+\frac{a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(-a+b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\frac{1}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}$$

$$\left.\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(-a+b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+$$

$$\left(\left(-2\left(3 a^5+3 a^4 b-15 a^3 b^2-15 a^2 b^3+8 a b^4+8 b^5\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a\left(3 a^4-6 a^3 b-15 a^2 b^2+2 a b^3+8 b^4\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(3 a^4-15 a^2 b^2+8 b^4\right)\operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)$$

$$\left.\left(-\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\operatorname{Sec}[c+d x]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]\operatorname{Tan}[c+d x]\right)\right)\Big/$$

$$\left.\left.\left(3 a^3\left(a^2-b^2\right)^2\sqrt{a+b \operatorname{Cos}[c+d x]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\operatorname{Sec}[c+d x]}}{(a+b \operatorname{Cos}[c+d x])^{5/2}}, x, 6, 0\right\}$$

$$-\frac{4\,b\,\left(3\,a^2-b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\left(2\,\left(3\,a^2+3\,a\,b-2\,b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\right)\Big/\left(3\,a\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\frac{2\,b^2\,\text{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{4\,b\,\left(3\,a^2-b^2\right)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,(a-b)\,(a+b)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{4\,b\,\left(3\,a^2-b^2\right)\,\text{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2}-\frac{2\,b\,\text{Sin}[c+d\,x]}{3\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{2\,\left(5\,a^2\,b\,\text{Sin}[c+d\,x]-b^3\,\text{Sin}[c+d\,x]\right)}{3\,a\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+$$

$$\left(4\,\left(-\frac{2\,a\,b}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,b^3}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{a^2\,\sqrt{\text{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{5\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^4\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\left.\frac{2\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^4\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(2\,b\,\left(-3\,a^3-3\,a^2\,b+a\,b^2+b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(3\,a^3+6\,a^2\,b+a\,b^2-2\,b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,\left(-3\,a^2+b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\Big/$$

$$\Bigg(3\left(a^3-a b^2\right)^2 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\Bigg(\frac{1}{3\left(a^3-a b^2\right)^2(a+b\,\mathrm{Cos}[c+d x])^{3/2}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}2 b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d x)\right]^2\mathrm{Sec}[c+d x]}\,\mathrm{Sin}[c+d x]$$

$$\Bigg(2 b\left(-3 a^3-3 a^2 b+a b^2+b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d x]}{1+\mathrm{Cos}[c+d x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{(a+b)(1+\mathrm{Cos}[c+d x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+a\left(3 a^3+6 a^2 b+a b^2-2 b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d x]}{1+\mathrm{Cos}[c+d x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{(a+b)(1+\mathrm{Cos}[c+d x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+b\left(-3 a^2+b^2\right)\mathrm{Cos}[c+d x](a+b\,\mathrm{Cos}[c+d x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)-$$

$$\frac{1}{3\left(a^3-a b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}2\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d x)\right]^2\mathrm{Sec}[c+d x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(2 b\left(-3 a^3-3 a^2 b+a b^2+b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d x]}{1+\mathrm{Cos}[c+d x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{(a+b)(1+\mathrm{Cos}[c+d x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+a\left(3 a^3+6 a^2 b+a b^2-2 b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d x]}{1+\mathrm{Cos}[c+d x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{(a+b)(1+\mathrm{Cos}[c+d x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+b\left(-3 a^2+b^2\right)\mathrm{Cos}[c+d x](a+b\,\mathrm{Cos}[c+d x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+$$

$$\frac{1}{3\left(a^3-a b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}4\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d x)\right]^2\mathrm{Sec}[c+d x]}\Bigg(\frac{1}{2}b\left(-3 a^2+b^2\right)\mathrm{Cos}[c+d x]$$

$$(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}b\left(-3\,a^3-3\,a^2\,b+a\,b^2+b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+\frac{1}{2\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$a\left(3\,a^3+6\,a^2\,b+a\,b^2-2\,b^3\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}b\left(-3\,a^3-3\,a^2\,b+a\,b^2+b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{2\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}a\left(3\,a^3+6\,a^2\,b+a\,b^2-2\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-b^2\left(-3\,a^2+b^2\right)\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-b\left(-3\,a^2+b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$b\left(-3\,a^2+b^2\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2+$$

$$\frac{a\left(3\,a^3+6\,a^2\,b+a\,b^2-2\,b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{b\left(-3\,a^3-3\,a^2\,b+a\,b^2+b^3\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)+$$

$$\left(2\left(2\,b\left(-3\,a^3-3\,a^2\,b+a\,b^2+b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+a\left(3\,a^3+6\,a^2\,b+a\,b^2-2\,b^3\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+b\left(-3\,a^2+b^2\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\Big/\left(3\left(a^3-a\,b^2\right)^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{1}{(a+b\,\text{Cos}[c+d\,x])^{5/2}\sqrt{\text{Sec}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{2\left(3\,a^2+b^2\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(3\,a+b)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,b\,\text{Sin}[c+d\,x]}{3\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\left(3\,a^2+b^2\right)\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,(a-b)\,(a+b)^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{2\left(3\,a^2+b^2\right)\text{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)^2}+\frac{2\,a\,\text{Sin}[c+d\,x]}{3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}+\frac{4\left(a^2\,\text{Sin}[c+d\,x]+b^2\,\text{Sin}[c+d\,x]\right)}{3\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}\right)}{d}-$$

$$\left(2\left(\frac{a^2}{\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}}+\frac{b^2}{3\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{a\,b\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{b^3\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{a\,b\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{b^3\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\Bigg)\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\Bigg(-2\,\left(3\,a^3+3\,a^2\,b+a\,b^2+b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$2\,a\,\left(3\,a^2+4\,a\,b+b^2\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left(3\,a^2+b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,a\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(-\frac{1}{3\,a\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]$$

$$\Bigg(-2\,\left(3\,a^3+3\,a^2\,b+a\,b^2+b^3\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]+2\,a\,\left(3\,a^2+4\,a\,b+b^2\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\left(3\,a^2+b^2\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-2\left(3a^3+3a^2b+ab^2+b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(3a^2+4ab+b^2\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-\left(3a^2+b^2\right)\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)-$$

$$\frac{1}{3a\left(a^2-b^2\right)^2\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}\,2\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\left(-\frac{1}{2}\left(3a^2+b^2\right)\text{Cos}[c+dx]\right.$$

$$(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^4-\frac{1}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}\left(3a^3+3a^2b+ab^2+b^3\right)\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{(1+\text{Cos}[c+dx])^2}-\frac{\text{Sin}[c+dx]}{1+\text{Cos}[c+dx]}\right)+$$

$$\frac{a\left(3a^2+4ab+b^2\right)\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{(1+\text{Cos}[c+dx])^2}-\frac{\text{Sin}[c+dx]}{1+\text{Cos}[c+dx]}\right)}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}-$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}}\left(3a^3+3a^2b+ab^2+b^3\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}+\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sin}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])^2}\right)+\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}}$$

$$a\left(3a^2+4ab+b^2\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}+\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sin}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])^2}\right)+b\left(3a^2+b^2\right)\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2$$

$$\text{Sin}[c+dx]\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+\left(3a^2+b^2\right)(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Sin}[c+dx]\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]-$$

$$\left(3 a^2+b^2\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{a\left(3 a^2+4 a b+b^2\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\left.\frac{\left(3 a^3+3 a^2 b+a b^2+b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)-$$

$$\left(\left(-2\left(3 a^3+3 a^2 b+a b^2+b^3\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\ \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(3 a^2+4 a b+b^2\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\ \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-\left(3 a^2+b^2\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\right.$$

$$\left.\left(-\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \operatorname{Sec}[c+d x] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]\right)\right) \Big/$$

$$\left.\left.\left(3 a\left(a^2-b^2\right)^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+b \operatorname{Cos}[c+d x])^{5/2} \operatorname{Sec}[c+d x]^{5/2}}, x, 8, 0\right\}$$

$$-\left(2 a \left(3 a^2-7 b^2\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3 (a-b)^2 b^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right) +$$

$$\left(2 \left(2 a^2-3 a b-3 b^2\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3 (a-b)^2 b (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right) +$$

$$\frac{4 \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{b^2 d \sqrt{a+b \text{Cos}[c+d x]}} -$$

$$\frac{2 a^2 \text{Sin}[c+d x]}{3 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^{3/2} \sqrt{\text{Sec}[c+d x]}} -$$

$$\frac{2 a \left(3 a^2-7 b^2\right) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{3 (a-b) b^2 (a+b)^2 d \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \left(\frac{2 a \left(3 a^2-7 b^2\right) \text{Sin}[c+d x]}{3 b^2 \left(a^2-b^2\right)^2}+\frac{2 a^3 \text{Sin}[c+d x]}{3 b^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}-\frac{8 \left(a^4 \text{Sin}[c+d x]-2 a^2 b^2 \text{Sin}[c+d x]\right)}{3 b^2 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)}{d} +$$

$$\left(2 \left(3 a^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]+3 a^3 b \text{Tan}\left[\frac{1}{2} (c+d x)\right]-7 a^2 b^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]-7 a b^3 \text{Tan}\left[\frac{1}{2} (c+d x)\right]-6 a^3 b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^3+\right.\right.$$

$$14 a b^3 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^3-3 a^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^5+3 a^3 b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^5+7 a^2 b^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^5-$$

$$7 a b^3 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^5+6 a^4 \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}-12 a^2 b^2 \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}} +$$

$$6\,b^4\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+6\,a^4\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$12\,a^2\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+6\,b^4\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$a\left(3\,a^3+3\,a^2\,b-7\,a\,b^2-7\,b^3\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$b\left(-2\,a^3+a^2\,b+6\,a\,b^2+3\,b^3\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left.\left.\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)\right)\Big/$$

$$\left(3\,b^2\left(a^2-b^2\right)^2 d\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x],\,x,\,3,\,0\}$$

$$(A\,b+a\,B)\,x+\frac{a\,A\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{b\,B\,\text{Sin}[c+d\,x]}{d}$$

$$\frac{A\,b\,d\,x+a\,B\,d\,x-a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+b\,B\,\text{Sin}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2,\,x,\,3,\,0\right\}$$

$$b\,B\,x+\frac{(A\,b+a\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{a\,A\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{1}{d}\left(b\,B\,d\,x-(A\,b+a\,B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+A\,b\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+a\,A\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\}$$

$$\frac{(a\,A+2\,b\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{(A\,b+a\,B)\,\text{Tan}[c+d\,x]}{d}+\frac{a\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}\left(-2\,(a\,A+2\,b\,B)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+2\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+4\,b\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\frac{a\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,A}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+4\,(A\,b+a\,B)\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\text{Cos}[c+d\,x])\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{(3\,a\,A+4\,b\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{2\,(A\,b+a\,B)\,\text{Tan}[c+d\,x]}{3\,d}+\frac{(3\,a\,A+4\,b\,B)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+\frac{(A\,b+a\,B)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}-\frac{b\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{b\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{b\,B}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}-\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{b\,B}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{2\,A\,b\,\text{Tan}[c+d\,x]}{3\,d}+\frac{2\,a\,B\,\text{Tan}[c+d\,x]}{3\,d}+\frac{A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,B\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\text{Cos}[c+d\,x])^2\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^2,\ x,\ 4,\ 0\}$$

$$\left(A\,b^2+2\,a\,b\,B\right)x+\frac{a\,(2\,A\,b+a\,B)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}-\frac{b\,(a\,A-b\,B)\,\text{Sin}[c+d\,x]}{d}+\frac{a\,A\,(a+b\,\text{Cos}[c+d\,x])\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{1}{d}\left(A b^2 c+2 a b B c+A b^2 d x+2 a b B d x-2 a A b \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-a^2 B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+2 a A b \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+a^2 B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+b^2 B \operatorname{Sin}[c+d x]+a^2 A \operatorname{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \operatorname{Cos}[c+d x])^2 (A+B \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^3, x, 4, 0\right\}$$

$$b^2 B x+\frac{\left(a^2 A+2 A b^2+4 a b B\right) \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{2 d}+\frac{a (3 A b+2 a B) \operatorname{Tan}[c+d x]}{2 d}+\frac{a A (b+a \operatorname{Sec}[c+d x]) \operatorname{Tan}[c+d x]}{2 d}$$

$$\frac{1}{4 d}\left(4 b^2 B c+4 b^2 B d x-2\left(a^2 A+2 A b^2+4 a b B\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+2 a^2 A \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+4 A b^2 \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+8 a b B \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+\frac{a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}-\frac{a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+4 a (2 A b+a B) \operatorname{Tan}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \operatorname{Cos}[c+d x])^2 (A+B \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^5, x, 6, 0\right\}$$

$$\frac{\left(3 a^2 A+4 A b^2+8 a b B\right) \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{8 d}+\frac{\left(4 a A b+2 a^2 B+3 b^2 B\right) \operatorname{Tan}[c+d x]}{3 d}+\frac{\left(3 a^2 A+4 A b^2+8 a b B\right) \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{8 d}+\frac{a (5 A b+4 a B) \operatorname{Sec}[c+d x]^2 \operatorname{Tan}[c+d x]}{12 d}+\frac{a A (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^3 \operatorname{Tan}[c+d x]}{4 d}$$

$$\frac{1}{48 d}\left(-6\left(3 a^2 A+4 A b^2+8 a b B\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+6\left(3 a^2 A+4 A b^2+8 a b B\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+\frac{3 a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{12 A b^2+8 a b (A+3 B)+a^2 (9 A+4 B)}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{8 a (2 A b+a B) \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}+\frac{16\left(4 a A b+2 a^2 B+3 b^2 B\right) \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]-\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}-\frac{3 a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{8 a (2 A b+a B) \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}-\frac{12 A b^2+8 a b (A+3 B)+a^2 (9 A+4 B)}{\left(\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{16\left(4 a A b+2 a^2 B+3 b^2 B\right) \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^3\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$b^3\,B\,x+\frac{\left(3\,a^2\,A\,b+2\,A\,b^3+a^3\,B+6\,a\,b^2\,B\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{a\left(4\,a^2\,A+11\,A\,b^2+15\,a\,b\,B\right)\mathrm{Tan}[c+d\,x]}{6\,d}+$$
$$\frac{a\,(5\,A\,b+3\,a\,B)\,(b+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a\,A\,(b+a\,\mathrm{Sec}[c+d\,x])^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

$$\frac{1}{12\,d}\left(12\,b^3\,B\,(c+d\,x)-6\left(3\,a^2\,A\,b+2\,A\,b^3+a^3\,B+6\,a\,b^2\,B\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$6\left(3\,a^2\,A\,b+2\,A\,b^3+a^3\,B+6\,a\,b^2\,B\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{a^2\,(9\,A\,b+a\,(A+3\,B))}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{2\,a^3\,A\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{4\,a\left(2\,a^2\,A+9\,A\,b^2+9\,a\,b\,B\right)\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}+$$
$$\left.\frac{2\,a^3\,A\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-\frac{a^2\,(9\,A\,b+a\,(A+3\,B))}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,a\left(2\,a^2\,A+9\,A\,b^2+9\,a\,b\,B\right)\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^3\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\}$$

$$\frac{\left(3\,a^3\,A+12\,a\,A\,b^2+12\,a^2\,b\,B+8\,b^3\,B\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+$$
$$\frac{\left(6\,a^2\,A\,b+3\,A\,b^3+2\,a^3\,B+9\,a\,b^2\,B\right)\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a\left(9\,a^2\,A+18\,A\,b^2+28\,a\,b\,B\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{24\,d}+$$
$$\frac{a\,(3\,A\,b+2\,a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{6\,d}+\frac{a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{1}{48\,d}\left(-6\left(3\,a^3\,A+12\,a\,A\,b^2+12\,a^2\,b\,B+8\,b^3\,B\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$6\left(3\,a^3\,A+12\,a\,A\,b^2+12\,a^2\,b\,B+8\,b^3\,B\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\frac{3\,a^3\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{a\left(36\,A\,b^2+12\,a\,b\,(A+3\,B)+a^2\,(9\,A+4\,B)\right)}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{8\,a^2\,(3\,A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{16\left(6\,a^2\,A\,b+3\,A\,b^3+2\,a^3\,B+9\,a\,b^2\,B\right)\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-$$
$$\frac{3\,a^3\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{8\,a^2\,(3\,A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-$$
$$\left.\frac{a\left(36\,A\,b^2+12\,a\,b\,(A+3\,B)+a^2\,(9\,A+4\,B)\right)}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{16\left(6\,a^2\,A\,b+3\,A\,b^3+2\,a^3\,B+9\,a\,b^2\,B\right)\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3}{a+b\,\mathrm{Cos}[c+d\,x]},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\,b^2\,(A\,b-a\,B)\,\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\,\sqrt{a^2-b^2}\,d}+$$

$$\frac{\left(a^2\,A+2\,A\,b^2-2\,a\,b\,B\right)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^3\,d}-\frac{(A\,b-a\,B)\,\mathrm{Tan}[c+d\,x]}{a^2\,d}+\frac{A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a\,d}$$

$$\frac{1}{4\,a^3\,d}\left(\frac{8\,b^2\,(A\,b-a\,B)\,\mathrm{ArcTanh}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}-2\,\left(a^2\,A+2\,A\,b^2-2\,a\,b\,B\right)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$2\,\left(a^2\,A+2\,A\,b^2-2\,a\,b\,B\right)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{a^2\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\left.\frac{4\,a\,(-A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{a^2\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,a\,(-A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4}{a+b\,\mathrm{Cos}[c+d\,x]},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,b^3\,(A\,b-a\,B)\,\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4\,\sqrt{a^2-b^2}\,d}-\frac{\left(a^2\,A\,b+2\,A\,b^3-a^3\,B-2\,a\,b^2\,B\right)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^4\,d}+$$

$$\frac{\left(2\,a^2\,A+3\,A\,b^2-3\,a\,b\,B\right)\,\mathrm{Tan}[c+d\,x]}{3\,a^3\,d}-\frac{(A\,b-a\,B)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^2\,d}+\frac{A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,a\,d}$$

$$\frac{1}{12\,a^4\,d}\left(\frac{24\,b^3\,(-A\,b+a\,B)\,\mathrm{ArcTanh}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}-6\,\left(a^2+2\,b^2\right)\,(-A\,b+a\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$6\,\left(a^2+2\,b^2\right)\,(-A\,b+a\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{a^2\,(-3\,A\,b+a\,(A+3\,B))}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\frac{2\,a^3\,A\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{4\,a\,\left(2\,a^2\,A+3\,A\,b^2-3\,a\,b\,B\right)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}+$$

$$\left.\frac{2\,a^3\,A\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}-\frac{a^2\,(-3\,A\,b+a\,(A+3\,B))}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,a\,\left(2\,a^2\,A+3\,A\,b^2-3\,a\,b\,B\right)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^4\,(A+B\,\mathrm{Cos}[c+d\,x])}{(a+b\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(A b-4 a B) x}{b^5}-\frac{a\left(2 a^6 A b-7 a^4 A b^3+8 a^2 A b^5-8 A b^7-8 a^7 B+28 a^5 b^2 B-35 a^3 b^4 B+20 a b^6 B\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{b^5\left(a^2-b^2\right)^{7/2} d}-$$

$$\frac{\left(6 a^5 A b-17 a^3 A b^3+26 a A b^5-24 a^6 B+68 a^4 b^2 B-65 a^2 b^4 B+6 b^6 B\right) \text{Sin}[c+d x]}{6 b^4\left(a^2-b^2\right)^3 d}+$$

$$\frac{a(A b-a B) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^3}+\frac{a\left(a^2 A b-6 A b^3-4 a^3 B+9 a b^2 B\right) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{6 b^2\left(a^2-b^2\right)^2 d(a+b \text{Cos}[c+d x])^2}+$$

$$\frac{a\left(a^4 A b-2 a^2 A b^3+6 A b^5-4 a^5 B+11 a^3 b^2 B-12 a b^4 B\right) \text{Cos}[c+d x] \text{Sin}[c+d x]}{2 b^3\left(a^2-b^2\right)^3 d(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{24 b^5 d}\left(\frac{24 a\left(-2 a^6 A b+7 a^4 A b^3-8 a^2 A b^5+8 A b^7+8 a^7 B-28 a^5 b^2 B+35 a^3 b^4 B-20 a b^6 B\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}-\right.$$

$$\frac{1}{\left(a^2-b^2\right)^3(a+b \text{Cos}[c+d x])^3}$$

$$\left(-24 a^9 A b c+36 a^7 A b^3 c+36 a^5 A b^5 c-84 a^3 A b^7 c+36 a A b^9 c+96 a^{10} B c-144 a^8 b^2 B c-144 a^6 b^4 B c+336 a^4 b^6 B c-\right.$$
$$144 a^2 b^8 B c-24 a^9 A b d x+36 a^7 A b^3 d x+36 a^5 A b^5 d x-84 a^3 A b^7 d x+36 a A b^9 d x+96 a^{10} B d x-144 a^8 b^2 B d x-$$
$$144 a^6 b^4 B d x+336 a^4 b^6 B d x-144 a^2 b^8 B d x+18 b\left(-a^2+b^2\right)^3\left(4 a^2+b^2\right)(A b-4 a B)(c+d x) \text{Cos}[c+d x]+$$
$$36 a b^2\left(a^2-b^2\right)^3(-A b+4 a B)(c+d x) \text{Cos}[2(c+d x)]-6 a^6 A b^4 c \text{Cos}[3(c+d x)]+18 a^4 A b^6 c \text{Cos}[3(c+d x)]-$$
$$18 a^2 A b^8 c \text{Cos}[3(c+d x)]+6 A b^{10} c \text{Cos}[3(c+d x)]+24 a^7 b^3 B c \text{Cos}[3(c+d x)]-72 a^5 b^5 B c \text{Cos}[3(c+d x)]+$$
$$72 a^3 b^7 B c \text{Cos}[3(c+d x)]-24 a b^9 B c \text{Cos}[3(c+d x)]-6 a^6 A b^4 d x \text{Cos}[3(c+d x)]+18 a^4 A b^6 d x \text{Cos}[3(c+d x)]-$$
$$18 a^2 A b^8 d x \text{Cos}[3(c+d x)]+6 A b^{10} d x \text{Cos}[3(c+d x)]+24 a^7 b^3 B d x \text{Cos}[3(c+d x)]-$$
$$72 a^5 b^5 B d x \text{Cos}[3(c+d x)]+72 a^3 b^7 B d x \text{Cos}[3(c+d x)]-24 a b^9 B d x \text{Cos}[3(c+d x)]+24 a^8 A b^2 \text{Sin}[c+d x]-$$
$$57 a^6 A b^4 \text{Sin}[c+d x]+72 a^4 A b^6 \text{Sin}[c+d x]+36 a^2 A b^8 \text{Sin}[c+d x]-96 a^9 b B \text{Sin}[c+d x]+$$
$$228 a^7 b^3 B \text{Sin}[c+d x]-135 a^5 b^5 B \text{Sin}[c+d x]-90 a^3 b^7 B \text{Sin}[c+d x]+18 a b^9 B \text{Sin}[c+d x]+$$
$$30 a^7 A b^3 \text{Sin}[2(c+d x)]-90 a^5 A b^5 \text{Sin}[2(c+d x)]+120 a^3 A b^7 \text{Sin}[2(c+d x)]-120 a^8 b^2 B \text{Sin}[2(c+d x)]+$$
$$336 a^6 b^4 B \text{Sin}[2(c+d x)]-300 a^4 b^6 B \text{Sin}[2(c+d x)]+18 a^2 b^8 B \text{Sin}[2(c+d x)]+$$
$$6 b^{10} B \text{Sin}[2(c+d x)]+11 a^6 A b^4 \text{Sin}[3(c+d x)]-32 a^4 A b^6 \text{Sin}[3(c+d x)]+36 a^2 A b^8 \text{Sin}[3(c+d x)]-$$
$$44 a^7 b^3 B \text{Sin}[3(c+d x)]+125 a^5 b^5 B \text{Sin}[3(c+d x)]-114 a^3 b^7 B \text{Sin}[3(c+d x)]+18 a b^9 B \text{Sin}[3(c+d x)]-$$
$$\left.\left.3 a^6 b^4 B \text{Sin}[4(c+d x)]+9 a^4 b^6 B \text{Sin}[4(c+d x)]-9 a^2 b^8 B \text{Sin}[4(c+d x)]+3 b^{10} B \text{Sin}[4(c+d x)]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^3(A+B \text{Cos}[c+d x])}{(a+b \text{Cos}[c+d x])^4}, x, 5, 0\right\}$$

$$\frac{B x}{b^4}-\frac{\left(3 a^2 A b^5+2 A b^7+2 a^7 B-7 a^5 b^2 B+8 a^3 b^4 B-8 a b^6 B\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{b^4\left(a^2-b^2\right)^{7/2} d}+\frac{a(A b-a B) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^3}-$$

$$\frac{a\left(5 A b^3+3 a^3 B-8 a b^2 B\right) \text{Cos}[c+d x] \text{Sin}[c+d x]}{6 b^2\left(a^2-b^2\right)^2 d(a+b \text{Cos}[c+d x])^2}+\frac{a\left(4 a^2 A b^3+11 A b^5-6 a^5 B+17 a^3 b^2 B-26 a b^4 B\right) \text{Sin}[c+d x]}{6 b^3\left(a^2-b^2\right)^3 d(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{24 b^4 d}\left(-\frac{24\left(3 a^2 A b^5+2 A b^7+2 a^7 B-7 a^5 b^2 B+8 a^3 b^4 B-8 a b^6 B\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}+\right.$$

$$\frac{1}{\left(a^2-b^2\right)^3 (a+b \text{Cos}[c+d x])^3}\left(24 a^9 B c-36 a^7 b^2 B c-36 a^5 b^4 B c+84 a^3 b^6 B c-36 a b^8 B c+24 a^9 B d x-\right.$$

$$36 a^7 b^2 B d x-36 a^5 b^4 B d x+84 a^3 b^6 B d x-36 a b^8 B d x+18 b \left(a^2-b^2\right)^3 \left(4 a^2+b^2\right) B (c+d x) \text{Cos}[c+d x]+$$

$$36 a b^2 \left(a^2-b^2\right)^3 B (c+d x) \text{Cos}[2 (c+d x)]+6 a^6 b^3 B c \text{Cos}[3 (c+d x)]-18 a^4 b^5 B c \text{Cos}[3 (c+d x)]+$$

$$18 a^2 b^7 B c \text{Cos}[3 (c+d x)]-6 b^9 B c \text{Cos}[3 (c+d x)]+6 a^6 b^3 B d x \text{Cos}[3 (c+d x)]-18 a^4 b^5 B d x \text{Cos}[3 (c+d x)]+$$

$$18 a^2 b^7 B d x \text{Cos}[3 (c+d x)]-6 b^9 B d x \text{Cos}[3 (c+d x)]+18 a^5 A b^4 \text{Sin}[c+d x]+39 a^3 A b^6 \text{Sin}[c+d x]+$$

$$18 a A b^8 \text{Sin}[c+d x]-24 a^8 b B \text{Sin}[c+d x]+57 a^6 b^3 B \text{Sin}[c+d x]-72 a^4 b^5 B \text{Sin}[c+d x]-$$

$$36 a^2 b^7 B \text{Sin}[c+d x]+6 a^4 A b^5 \text{Sin}[2 (c+d x)]+54 a^2 A b^7 \text{Sin}[2 (c+d x)]-30 a^7 b^2 B \text{Sin}[2 (c+d x)]+$$

$$90 a^5 b^4 B \text{Sin}[2 (c+d x)]-120 a^3 b^6 B \text{Sin}[2 (c+d x)]+2 a^5 A b^4 \text{Sin}[3 (c+d x)]-5 a^3 A b^6 \text{Sin}[3 (c+d x)]+$$

$$\left.\left.18 a A b^8 \text{Sin}[3 (c+d x)]-11 a^6 b^3 B \text{Sin}[3 (c+d x)]+32 a^4 b^5 B \text{Sin}[3 (c+d x)]-36 a^2 b^7 B \text{Sin}[3 (c+d x)]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]}{(a+b \text{Cos}[c+d x])^4}, x, 6, 0\right\}$$

$$-\frac{\left(8 a^6 A b-8 a^4 A b^3+7 a^2 A b^5-2 A b^7-2 a^7 B-3 a^5 b^2 B\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4 \left(a^2-b^2\right)^{7/2} d}+$$

$$\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^4 d}+\frac{b (A b-a B) \text{Sin}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+$$

$$\frac{b \left(8 a^2 A b-3 A b^3-5 a^3 B\right) \text{Sin}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}+\frac{b \left(26 a^4 A b-17 a^2 A b^3+6 A b^5-11 a^5 B-4 a^3 b^2 B\right) \text{Sin}[c+d x]}{6 a^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{24 a^4 d (A+B \text{Cos}[c+d x])}$$

$$\text{Cos}[c+d x] (B+A \text{Sec}[c+d x])\left(\frac{24\left(-8 a^6 A b+8 a^4 A b^3-7 a^2 A b^5+2 A b^7+2 a^7 B+3 a^5 b^2 B\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}-\right.$$

$$24 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+24 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\frac{1}{\left(a^2-b^2\right)^3 (a+b \text{Cos}[c+d x])^3}$$

$$2 a b\left(-72 a^6 A b+38 a^4 A b^3-5 a^2 A b^5-6 A b^7+36 a^7 B+a^5 b^2 B+8 a^3 b^4 B+6 a b\left(-20 a^4 A b+15 a^2 A b^3-5 A b^5+9 a^5 B+a^3 b^2 B\right)\right.$$

$$\left.\left.\text{Cos}[c+d x]+b^2\left(-26 a^4 A b+17 a^2 A b^3-6 A b^5+11 a^5 B+4 a^3 b^2 B\right) \text{Cos}[2 (c+d x)]\right) \text{Sin}[c+d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a B+b B \text{Cos}[c+d x]) \text{Sec}[c+d x]}{a+b \text{Cos}[c+d x]}, x, 2, 0\right\}$$

$$\frac{B\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}$$

$$\frac{B\left(-\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]\right)}{d}$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^5,\ x,\ 12,\ 0\right\}$$

$$-\frac{(a+b)\left(284\,a^2\,A\,b+15\,A\,b^3+128\,a^3\,B+264\,a\,b^2\,B\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\ \frac{2\,b}{a+b}\right]}{192\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(356\,a^2\,A\,b+133\,A\,b^3+128\,a^3\,B+472\,a\,b^2\,B\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\ \frac{2\,b}{a+b}\right]}{192\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(48\,a^4\,A+120\,a^2\,A\,b^2-5\,A\,b^4+160\,a^3\,b\,B+40\,a\,b^3\,B\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\,\text{EllipticPi}\left[2,\ \frac{1}{2}(c+d\,x),\ \frac{2\,b}{a+b}\right]}{64\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(284\,a^2\,A\,b+15\,A\,b^3+128\,a^3\,B+264\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}[c+d\,x]}{192\,a\,d}+$$

$$\frac{\left(36\,a^2\,A+59\,A\,b^2+104\,a\,b\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{96\,d}+$$

$$\frac{a\,(11\,A\,b+8\,a\,B)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{24\,d}+\frac{a\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$\frac{1}{768\,a\,d}\left(\frac{2\left(144\,a^3\,A\,b+236\,a\,A\,b^3+416\,a^2\,b^2\,B\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.$$

$$\frac{2\left(288\,a^4\,A+436\,a^2\,A\,b^2-45\,A\,b^4+832\,a^3\,b\,B-24\,a\,b^3\,B\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left(2\,i\,\left(-284\,a^2\,A\,b^2-15\,A\,b^4-128\,a^3\,b\,B-264\,a\,b^3\,B\right)\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\right.$$

$$\mathrm{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\mathrm{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,\sqrt{-\frac{1}{a+b}}\,\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\,\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{1}{24}\,\mathrm{Sec}[c+d\,x]^3\left(17\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+8\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\right.$$

$$\frac{1}{96}\,\mathrm{Sec}[c+d\,x]^2\left(36\,a^2\,A\,\mathrm{Sin}[c+d\,x]+59\,A\,b^2\,\mathrm{Sin}[c+d\,x]+104\,a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{\mathrm{Sec}[c+d\,x]\left(284\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+15\,A\,b^3\,\mathrm{Sin}[c+d\,x]+128\,a^3\,B\,\mathrm{Sin}[c+d\,x]+264\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]\right)}{192\,a}+$$

$$\left.\frac{1}{4}\,a^2\,A\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(A\,b-a\,B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,a\,d\,(A+B\,\mathrm{Cos}[c+d\,x])}\mathrm{Cos}[c+d\,x]\,(B+A\,\mathrm{Sec}[c+d\,x])\left(-\frac{1}{(-a+b)\,(a+b)}\left(\frac{4\,a\,(-A\,b+a\,B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.\right.$$

$$\frac{2\left(2\,a^2\,A-3\,A\,b^2+a\,b\,B\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{1}{a\,b\sqrt{-\frac{1}{a+b}}}$$

$$2\,i\,(A\,b-a\,B)\sqrt{-\frac{b\,(-1+\mathrm{Cos}[c+d\,x])}{a+b}}\sqrt{\frac{b\,(1+\mathrm{Cos}[c+d\,x])}{-a+b}}\,\mathrm{Csc}[c+d\,x]$$

$$\left(-2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(-2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$\left.\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\right)+\frac{4\,b\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\,x,\,10,\,0\right\}$$

$$-\frac{2\left(7\,a^2\,A\,b-3\,A\,b^3-4\,a^3\,B\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{3\,a^2\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A\,b-a\,B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{3\,a\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a^2\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,b\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{2\,b\left(7\,a^2\,A\,b-3\,A\,b^3-4\,a^3\,B\right)\mathrm{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)^2\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{6 a^2 (a-b)^2 (a+b)^2 d (A+B \operatorname{Cos}[c+d x])}$$

$$\operatorname{Cos}[c+d x] (B+A \operatorname{Sec}[c+d x]) \left(\frac{2 \left(-12 a^3 A b+4 a A b^3+6 a^4 B+2 a^2 b^2 B\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}+\right.$$

$$\frac{2 \left(6 a^4 A-19 a^2 A b^2+9 A b^4+4 a^3 b B\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\left(2 i \left(-7 a^2 A b^2+3 A b^4+4 a^3 b B\right) \sqrt{\frac{b-b \operatorname{Cos}[c+d x]}{a+b}} \sqrt{-\frac{b+b \operatorname{Cos}[c+d x]}{a-b}} \operatorname{Cos}[2 (c+d x)]\right.$$

$$\left(2 a (a-b) \operatorname{EllipticE}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]+b \left(2 a \operatorname{EllipticF}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\right.\right.\right.\right.$$

$$\left.\left.\left.\sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]-b \operatorname{EllipticPi}\left[\frac{a+b}{a}, i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]\right)\right)$$

$$\left.\operatorname{Sin}[c+d x]\right) \Big/ \left(a \sqrt{-\frac{1}{a+b}} \sqrt{1-\operatorname{Cos}[c+d x]^2} \sqrt{-\frac{a^2-b^2-2 a (a+b \operatorname{Cos}[c+d x])+(a+b \operatorname{Cos}[c+d x])^2}{b^2}}\right.$$

$$\left.\left.\left(2 a^2-b^2-4 a (a+b \operatorname{Cos}[c+d x])+2 (a+b \operatorname{Cos}[c+d x])^2\right)\right)\right)+$$

$$\frac{\operatorname{Cos}[c+d x] \sqrt{a+b \operatorname{Cos}[c+d x]} (B+A \operatorname{Sec}[c+d x]) \left(-\frac{2 \left(-A b^2 \operatorname{Sin}[c+d x]+a b B \operatorname{Sin}[c+d x]\right)}{3 a \left(a^2-b^2\right) (a+b \operatorname{Cos}[c+d x])^2}-\frac{2 \left(-7 a^2 A b^2 \operatorname{Sin}[c+d x]+3 A b^4 \operatorname{Sin}[c+d x]+4 a^3 b B \operatorname{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])}\right)}{d (A+B \operatorname{Cos}[c+d x])}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a B+b B \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]}{(a+b \operatorname{Cos}[c+d x])^{5/2}}, x, 8, 0\right\}$$

$$-\frac{2 b B \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticE}\left[\frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{a (a-b) d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{2 B \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{a d \sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{2 b^2 B \operatorname{Sin}[c+d x]}{a \left(a^2-b^2\right) d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$\frac{1}{2\,a\,d}\,B\left(-\frac{1}{(-a+b)\,(a+b)}\left(-\frac{4\,a\,b\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\right.\right.$$

$$\frac{2\,\left(2\,a^2-3\,b^2\right)\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{1}{a\,\sqrt{-\frac{1}{a+b}}}\,2\,i\,\sqrt{-\frac{b\,(-1+\text{Cos}[c+d\,x])}{a+b}}$$

$$\sqrt{\frac{b\,(1+\text{Cos}[c+d\,x])}{-a+b}}\;\text{Csc}[c+d\,x]\left(-2\,a\,(a-b)\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(-2\,a\,\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$\left.\left.\left.\left.b\,\text{EllipticPi}\left[\frac{a+b}{a},\,i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\right)+\frac{4\,b^2\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{a+b\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$-\frac{2\,\left(5\,a\,A\,b-5\,a^2\,B-3\,b^2\,B\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,b^3\,d}+\frac{2\,\left(3\,a^2\,A\,b+A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\,d}-$$

$$\frac{2\,a^3\,(A\,b-a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^4\,(a+b)\,d}+\frac{2\,(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3\,b^2\,d}+\frac{2\,B\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b\,d}$$

$$\frac{1}{30\,b^2\,d}\left(\frac{2\,\left(-5\,a\,A\,b+5\,a^2\,B+9\,b^2\,B\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{4\,(5\,A\,b+4\,a\,B)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$4\,\sqrt{\text{Cos}[c+d\,x]}\;(5\,A\,b-5\,a\,B+3\,b\,B\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]+\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,6\,\left(-5\,a\,A\,b+5\,a^2\,B+3\,b^2\,B\right)$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{a+b\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{2\,(A\,b-a\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}-\frac{2\left(3\,a\,A\,b-3\,a^2\,B-b^2\,B\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^3\,d}+$$

$$\frac{2\,a^2\,(A\,b-a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,(a+b)\,d}+\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b\,d}$$

$$\frac{1}{3\,b\,d}\left(\frac{(3\,A\,b-a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$B\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)+2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]-\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$3\,(A\,b-a\,B)\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(-2\,a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{a+b\,\text{Cos}[c+d\,x]},\,x,\,5,\,0\right\}$$

$$\frac{2\,B\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b\,d}+\frac{2\,(A\,b-a\,B)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}-\frac{2\,a\,(A\,b-a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,(a+b)\,d}$$

$$\frac{1}{b^2\,d}\left(A\,b\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)-\right.$$

$$\frac{1}{\sqrt{\text{Sin}[c+d\,x]^2}}2\,B\left(b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-\right.$$

$$\left.\left.(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-a\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])},\,x,\,5,\,0\right\}$$

$$-\frac{2\,A\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}-\frac{2\,(A\,b-a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,(a+b)\,d}+\frac{2\,A\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,a\,d}\left(\frac{2\,(-3\,A\,b+2\,a\,B)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\frac{2\,a\,A\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}+\frac{4\,A\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}}-\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,A\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$\frac{\left(3\,a^2\,A\,b-2\,A\,b^3-5\,a^3\,B+4\,a\,b^2\,B\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,\left(a^2-b^2\right)\,d}-\frac{\left(9\,a^3\,A\,b-12\,a\,A\,b^3-15\,a^4\,B+16\,a^2\,b^2\,B+2\,b^4\,B\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\,\left(a^2-b^2\right)\,d}+\frac{a^2\,\left(3\,a^2\,A\,b-5\,A\,b^3-5\,a^3\,B+7\,a\,b^2\,B\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^4\,(a+b)^2\,d}-\frac{\left(3\,a\,A\,b-5\,a^2\,B+2\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b^2\,\left(a^2-b^2\right)\,d}+\frac{a\,(A\,b-a\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{12\,b^2\,d}\left(4\,\sqrt{\text{Cos}[c+d\,x]}\left(2\,B+\frac{3\,a^2\,(-A\,b+a\,B)}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}\right)\text{Sin}[c+d\,x]-\frac{1}{(a-b)\,(a+b)}\left(\frac{2\,\left(-3\,a^2\,A\,b+6\,A\,b^3+5\,a^3\,B-8\,a\,b^2\,B\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{8\,\left(-3\,a\,A\,b+2\,a^2\,B+b^2\,B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,6\,\left(-3\,a^2\,A\,b+2\,A\,b^3+5\,a^3\,B-4\,a\,b^2\,B\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{\left(a A b-3 a^2 B+2 b^2 B\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b^2\left(a^2-b^2\right) d}+\frac{\left(a^2 A b-2 A b^3-3 a^3 B+4 a b^2 B\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b^3\left(a^2-b^2\right) d}-$$

$$\frac{a\left(a^2 A b-3 A b^3-3 a^3 B+5 a b^2 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{(a-b) b^3 (a+b)^2 d}+\frac{a (A b-a B) \sqrt{\text{Cos}[c+d x]}\, \text{Sin}[c+d x]}{b\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{4 b d}\left(-\frac{4 a (-A b+a B) \sqrt{\text{Cos}[c+d x]}\, \text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}+\frac{1}{(a-b)(a+b)}\left(\frac{2\left(a A b+a^2 B-2 b^2 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{8 (-A b+a B)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 2\left(-a A b+3 a^2 B-2 b^2 B\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\,(A+B \text{Cos}[c+d x])}{(a+b \text{Cos}[c+d x])^2}, x, 6, 0\right\}$$

$$\frac{(A b-a B) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b\left(a^2-b^2\right) d}+\frac{\left(a A b+a^2 B-2 b^2 B\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b^2\left(a^2-b^2\right) d}-$$

$$\frac{\left(a^2 A b+A b^3+a^3 B-3 a b^2 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{(a-b) b^2 (a+b)^2 d}-\frac{(A b-a B) \sqrt{\text{Cos}[c+d x]}\, \text{Sin}[c+d x]}{\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{4 d}\left(\frac{4 (-A b+a B) \sqrt{\text{Cos}[c+d x]}\, \text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}-\frac{1}{(-a+b)(a+b)}\right.$$

$$\left(\frac{2 (-A b+a B) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\frac{(4 a A-4 b B)\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}-\right.$$

$$\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 2 (A b-a B)\left(2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]-2 a (a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(-2 a^2+b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,(a+b \text{Cos}[c+d x])^2}, x, 6, 0\right\}$$

$$-\frac{(A b-a B)\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a\left(a^2-b^2\right)d}-\frac{(A b-a B)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b\left(a^2-b^2\right)d}+$$

$$\frac{\left(3 a^2 A b-A b^3-a^3 B-a b^2 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a(a-b)\,b\,(a+b)^2 d}+\frac{b\,(A b-a B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{4 a d}\left(\frac{4 b\,(A b-a B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}+\frac{1}{(a-b)(a+b)}\left(\frac{2\left(4 a^2 A-3 A b^2-a b B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{4 a(-A b+a B)\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}+\frac{1}{a b\sqrt{\text{Sin}[c+d x]^2}}$$

$$2(A b-a B)\left(2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]-2 a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left.\left(-2 a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{\text{Cos}[c+d x]^{3/2}\,(a+b\,\text{Cos}[c+d x])^2},x,7,0\right\}$$

$$-\frac{\left(2 a^2 A-3 A b^2+a b B\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a^2\left(a^2-b^2\right)d}+$$

$$\frac{(A b-a B)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{a\left(a^2-b^2\right)d}-\frac{\left(5 a^2 A b-3 A b^3-3 a^3 B+a b^2 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^2(a-b)(a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-3 A b^2+a b B\right)\text{Sin}[c+d x]}{a^2\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}}+\frac{b\,(A b-a B)\,\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{4 a^2 d}\left(-\frac{1}{(-a+b)(a+b)}\left(\frac{2\left(-10 a^2 A b+9 A b^3+4 a^3 B-3 a b^2 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.\right.$$

$$\frac{8 a\left(a^2 A-2 A b^2+a b B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{b(a+b)}-$$

$$\frac{1}{a b\sqrt{\text{Sin}[c+d x]^2}}2\left(2 a^2 A-3 A b^2+a b B\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)+$$

$$\left.4\sqrt{\text{Cos}[c+d x]}\left(\frac{b^2(A b-a B)\,\text{Sin}[c+d x]}{\left(-a^2+b^2\right)(a+b\,\text{Cos}[c+d x])}+2 A\,\text{Tan}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{\text{Cos}[c+d x]^{5/2}\,(a+b\,\text{Cos}[c+d x])^2},x,8,0\right\}$$

$$\frac{\left(4 a^2 A b-5 A b^3-2 a^3 B+3 a b^2 B\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a^3\left(a^2-b^2\right) d}+\frac{\left(2 a^2 A-5 A b^2+3 a b B\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 a^2\left(a^2-b^2\right) d}+$$

$$\frac{b\left(7 a^2 A b-5 A b^3-5 a^3 B+3 a b^2 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^3(a-b)(a+b)^2 d}+\frac{\left(2 a^2 A-5 A b^2+3 a b B\right) \text{Sin}[c+d x]}{3 a^2\left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}}-$$

$$\frac{\left(4 a^2 A b-5 A b^3-2 a^3 B+3 a b^2 B\right) \text{Sin}[c+d x]}{a^3\left(a^2-b^2\right) d \sqrt{\text{Cos}[c+d x]}}+\frac{b(A b-a B) \text{Sin}[c+d x]}{a\left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{12 a^3(a-b)(a+b) d}\left(\frac{2\left(4 a^4 A+44 a^2 A b^2-45 A b^4-30 a^3 b B+27 a b^3 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{\left(28 a^3 A b-40 a A b^3-12 a^4 B+24 a^2 b^2 B\right)\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}+$$

$$\left(2\left(12 a^2 A b^2-15 A b^4-6 a^3 b B+9 a b^3 B\right) \text{Cos}[2(c+d x)]\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)$$

$$\left.\left.\text{Sin}[c+d x]\right) \Big/\left(a b^2 \sqrt{1-\text{Cos}[c+d x]^2}\left(-1+2 \text{Cos}[c+d x]^2\right)\right)\right)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\left(\frac{2 \text{Sec}[c+d x](-2 A b \text{Sin}[c+d x]+a B \text{Sin}[c+d x])}{a^3}+\frac{A b^4 \text{Sin}[c+d x]-a b^3 B \text{Sin}[c+d x]}{a^3\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}+\frac{2 A \text{Sec}[c+d x] \text{Tan}[c+d x]}{3 a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{5/2}(A+B \text{Cos}[c+d x])}{(a+b \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$-\frac{\left(3 a^3 A b-9 a A b^3-15 a^4 B+29 a^2 b^2 B-8 b^4 B\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(3 a^4 A b-5 a^2 A b^3+8 A b^5-15 a^5 B+33 a^3 b^2 B-24 a b^4 B\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 b^4\left(a^2-b^2\right)^2 d}-$$

$$\frac{a\left(3 a^4 A b-6 a^2 A b^3+15 A b^5-15 a^5 B+38 a^3 b^2 B-35 a b^4 B\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4(a-b)^2 b^4(a+b)^3 d}+$$

$$\frac{a(A b-a B) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{2 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^2}+\frac{a\left(a^2 A b-7 A b^3-5 a^3 B+11 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{4 b^2\left(a^2-b^2\right)^2 d(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{8 b^2 d}\left(-\frac{2 a \sqrt{\text{Cos}[c+d x]}\left(a\left(-a^2 A b+7 A b^3+5 a^3 B-11 a b^2 B\right)+b\left(-3 a^2 A b+9 A b^3+7 a^3 B-13 a b^2 B\right)\text{Cos}[c+d x]\right)\text{Sin}[c+d x]}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d x])^2}+\right.$$

$$\frac{1}{(a-b)^2(a+b)^2}\left(\frac{\left(-a^3 A b-5 a A b^3+5 a^4 B-7 a^2 b^2 B+8 b^4 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{8\left(a^2 A b+2 A b^3+a^3 B-4 a b^2 B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}\left(-3 a^3 A b+9 a A b^3+15 a^4 B-29 a^2 b^2 B+8 b^4 B\right)$$

$$\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left.\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2}(A+B\,\text{Cos}[c+d x])}{(a+b\,\text{Cos}[c+d x])^3},x,7,0\right\}$$

$$-\frac{\left(a^2 A b+5 A b^3+3 a^3 B-9 a b^2 B\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^2\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(a^3 A b-7 a A b^3+3 a^4 B-5 a^2 b^2 B+8 b^4 B\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 b^3\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(a^4 A b-10 a^2 A b^3-3 A b^5+3 a^5 B-6 a^3 b^2 B+15 a b^4 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4(a-b)^2 b^3(a+b)^3 d}+$$

$$\frac{a(A b-a B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])^2}+\frac{\left(a^2 A b+5 A b^3+3 a^3 B-9 a b^2 B\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{4 b\left(a^2-b^2\right)^2 d\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{8 b d}\left(\frac{2\sqrt{\text{Cos}[c+d x]}\left(a\left(3 a^2 A b+3 A b^3+a^3 B-7 a b^2 B\right)+b\left(a^2 A b+5 A b^3+3 a^3 B-9 a b^2 B\right)\text{Cos}[c+d x]\right)\text{Sin}[c+d x]}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d x])^2}-\right.$$

$$\frac{1}{(a-b)^2(a+b)^2}\left(\frac{\left(-5 a^2 A b-A b^3+a^3 B+5 a b^2 B\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.$$

$$\frac{8\left(-3 a A b+a^2 B+2 b^2 B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}\left(a^2 A b+5 A b^3+3 a^3 B-9 a b^2 B\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$\frac{\left(5\,a^2\,A\,b+A\,b^3-a^3\,B-5\,a\,b^2\,B\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d}+\frac{\left(3\,a^2\,A\,b+3\,A\,b^3+a^3\,B-7\,a\,b^2\,B\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^2\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(3\,a^4\,A\,b+10\,a^2\,A\,b^3-A\,b^5+a^5\,B-10\,a^3\,b^2\,B-3\,a\,b^4\,B\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,(a-b)^2\,b^2\,(a+b)^3\,d}-$$

$$\frac{(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{\left(5\,a^2\,A\,b+A\,b^3-a^3\,B-5\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{16\,a\,d}\left(\frac{4\,\sqrt{\text{Cos}[c+d\,x]}\,\left(a\,\left(-7\,a^2\,A\,b+A\,b^3+3\,a^3\,B+3\,a\,b^2\,B\right)+b\,\left(-5\,a^2\,A\,b-A\,b^3+a^3\,B+5\,a\,b^2\,B\right)\text{Cos}[c+d\,x]\right)\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{2\,\left(-9\,a^2\,A\,b+3\,A\,b^3+5\,a^3\,B+a\,b^2\,B\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}+\right.$$

$$\frac{16\,a\,\left(2\,a^2\,A+A\,b^2-3\,a\,b\,B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\right)}{b\,(a+b)}-$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,\left(-5\,a^2\,A\,b-A\,b^3+a^3\,B+5\,a\,b^2\,B\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\ -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{\left(9\,a^2\,A\,b-3\,A\,b^3-5\,a^3\,B-a\,b^2\,B\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^2\,\left(a^2-b^2\right)^2\,d}-\frac{\left(7\,a^2\,A\,b-A\,b^3-3\,a^3\,B-3\,a\,b^2\,B\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(15\,a^4\,A\,b-6\,a^2\,A\,b^3+3\,A\,b^5-3\,a^5\,B-10\,a^3\,b^2\,B+a\,b^4\,B\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^2\,(a-b)^2\,b\,(a+b)^3\,d}+$$

$$\frac{b\,(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{b\,\left(9\,a^2\,A\,b-3\,A\,b^3-5\,a^3\,B-a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{8a^2 d}\left(-\frac{2b\sqrt{\text{Cos}[c+dx]}\left(a\left(-11a^2Ab+5Ab^3+7a^3B-ab^2B\right)+b\left(-9a^2Ab+3Ab^3+5a^3B+ab^2B\right)\text{Cos}[c+dx]\right)\text{Sin}[c+dx]}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])^2}+\right.$$

$$\frac{1}{(a-b)^2(a+b)^2}\left(\frac{\left(16a^4A-19a^2Ab^2+9Ab^4-9a^3bB+3ab^3B\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.$$

$$\frac{8a\left(-4a^2Ab+Ab^3+2a^3B+ab^2B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{b(a+b)}+$$

$$\frac{1}{ab\sqrt{\text{Sin}[c+dx]^2}}\left(-9a^2Ab+3Ab^3+5a^3B+ab^2B\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]}{\text{Cos}[c+dx]^{3/2}(a+b\,\text{Cos}[c+dx])^3},x,8,0\right\}$$

$$-\frac{\left(8a^4A-29a^2Ab^2+15Ab^4+9a^3bB-3ab^3B\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{4a^3\left(a^2-b^2\right)^2d}+$$

$$\frac{\left(11a^2Ab-5Ab^3-7a^3B+ab^2B\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{4a^2\left(a^2-b^2\right)^2d}-$$

$$\frac{\left(35a^4Ab-38a^2Ab^3+15Ab^5-15a^5B+6a^3b^2B-3ab^4B\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{4a^3(a-b)^2(a+b)^3d}+$$

$$\frac{\left(8a^4A-29a^2Ab^2+15Ab^4+9a^3bB-3ab^3B\right)\text{Sin}[c+dx]}{4a^3\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}}+$$

$$\frac{b(Ab-aB)\,\text{Sin}[c+dx]}{2a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])^2}+\frac{b\left(11a^2Ab-5Ab^3-7a^3B+ab^2B\right)\text{Sin}[c+dx]}{4a^2\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{8a^3d}\left(-\frac{1}{(a-b)^2(a+b)^2}\left(\frac{\left(56a^4Ab-95a^2Ab^3+45Ab^5-16a^5B+19a^3b^2B-9ab^4B\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.\right.$$

$$\frac{8a\left(2a^4A-10a^2Ab^2+5Ab^4+4a^3bB-ab^3B\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{b(a+b)}+$$

$$\frac{1}{ab\sqrt{\text{Sin}[c+dx]^2}}\left(8a^4A-29a^2Ab^2+15Ab^4+9a^3bB-3ab^3B\right)$$

$$\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\right.$$

$$\left.\left.\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)+$$

$$\frac{1}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])^2}\sqrt{\text{Cos}[c+dx]}\left(2ab\left(16a^4A-47a^2Ab^2+25Ab^4+11a^3bB-5ab^3B\right)\text{Sin}[c+dx]+\right.$$

$$\left.b^2\left(8a^4A-29a^2Ab^2+15Ab^4+9a^3bB-3ab^3B\right)\text{Sin}[2(c+dx)]+16A\left(a^3-ab^2\right)^2\text{Tan}[c+dx]\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 9,\ 0\right\}$$

$$\frac{\left(24\,a^4\,A\,b-65\,a^2\,A\,b^3+35\,A\,b^5-8\,a^5\,B+29\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^4\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4+33\,a^3\,b\,B-15\,a\,b^3\,B\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{12\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{b\,\left(63\,a^4\,A\,b-86\,a^2\,A\,b^3+35\,A\,b^5-35\,a^5\,B+38\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^4\,(a-b)^2\,(a+b)^3\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4+33\,a^3\,b\,B-15\,a\,b^3\,B\right)\,\text{Sin}[c+d\,x]}{12\,a^3\,\left(a^2-b^2\right)^2\,d\,\text{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{\left(24\,a^4\,A\,b-65\,a^2\,A\,b^3+35\,A\,b^5-8\,a^5\,B+29\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\,\text{Sin}[c+d\,x]}{4\,a^4\,\left(a^2-b^2\right)^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{b\,(A\,b-a\,B)\,\text{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{b\,\left(13\,a^2\,A\,b-7\,A\,b^3-9\,a^3\,B+3\,a\,b^2\,B\right)\,\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^4\,(a-b)^2\,(a+b)^2\,d}$$

$$\left(\frac{2\,\left(16\,a^6\,A+328\,a^4\,A\,b^2-641\,a^2\,A\,b^4+315\,A\,b^6-168\,a^5\,b\,B+285\,a^3\,b^3\,B-135\,a\,b^5\,B\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}+\right.$$

$$\frac{1}{b}\left(160\,a^5\,A\,b-512\,a^3\,A\,b^3+280\,a\,A\,b^5-48\,a^6\,B+240\,a^4\,b^2\,B-120\,a^2\,b^4\,B\right)$$

$$\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}\right)+\frac{1}{a\,b^2\,\sqrt{1-\text{Cos}[c+d\,x]^2}\,\left(-1+2\,\text{Cos}[c+d\,x]^2\right)}$$

$$2\,\left(72\,a^4\,A\,b^2-195\,a^2\,A\,b^4+105\,A\,b^6-24\,a^5\,b\,B+87\,a^3\,b^3\,B-45\,a\,b^5\,B\right)\,\text{Cos}[2\,(c+d\,x)]$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+\right.$$

$$\left.\left.\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\ -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]\right)\,\text{Sin}[c+d\,x]\right)+\frac{1}{d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\left(\frac{2\,\text{Sec}[c+d\,x]\,(-3\,A\,b\,\text{Sin}[c+d\,x]+a\,B\,\text{Sin}[c+d\,x])}{a^4}+\frac{A\,b^4\,\text{Sin}[c+d\,x]-a\,b^3\,B\,\text{Sin}[c+d\,x]}{2\,a^3\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{17\,a^2\,A\,b^4\,\text{Sin}[c+d\,x]-11\,A\,b^6\,\text{Sin}[c+d\,x]-13\,a^3\,b^3\,B\,\text{Sin}[c+d\,x]+7\,a\,b^5\,B\,\text{Sin}[c+d\,x]}{4\,a^4\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}+\frac{2\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{3\,a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(a\,B+b\,B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,a\,B\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}+\frac{2\,\left(3\,a^2+b^2\right)\,B\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^3\,d}-\frac{2\,a^3\,B\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,(a+b)\,d}+\frac{2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b\,d}$$

$$\frac{1}{3\,b\,d}B\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{3\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+2\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]+\frac{1}{b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,3\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{a\,B+b\,B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$-\frac{2\,B\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}-\frac{2\,b\,B\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,(a+b)\,d}+\frac{2\,B\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{1}{2\,a\,d}B\left(\frac{6\,b\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{2\,a\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}-\frac{4\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}}+\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,8,\,0\right\}$$

$$\frac{(a+b)\,\left(6\,a\,A\,b-3\,a^2\,B+16\,b^2\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{24\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{\left(6\,a\,A\,b-12\,A\,b^2+a^2\,B-14\,a\,b\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{12\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{\left(2\,a^2\,A\,b-8\,A\,b^3-a^3\,B-4\,a\,b^2\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{(6\,A\,b+a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,b\,d}+\frac{B\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{\left(6\,a\,A\,b-3\,a^2\,B+16\,b^2\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b^2\,d}$$

$$-\frac{1}{48\,b\,d}\left(-\left(4\,a\left(-18\,a\,A\,b+a^2\,B-16\,b^2\,B\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-24\,A\,b^2-28\,a\,b\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\left.\left.\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\right.\right.$$

$$\left.\left.\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\right)+2\left(-6aAb+3a^2B-16b^2B\right)$$

$$\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\right.\right.$$

$$\left.\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{(6\,A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{12\,b}+\frac{1}{6}\,B\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;(A+B\,\mathrm{Cos}[c+d\,x]),\;x,\;7,\;0\right\}$$

$$\frac{(a+b)\,(4\,A\,b+a\,B)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(4\,a\,A-a\,B+2\,b\,B)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a\,A\,b-a^2\,B+4\,b^2\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{B\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{(4\,A\,b+a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d}$$

$$\frac{B\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(4\,A\,b+3\,a\,B)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)-4\,a\,(8\,a\,A+4\,b\,B)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\Big((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)\Bigg)+$$

$$2\,(4\,A\,b+a\,B)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;(A+B\,\mathrm{Cos}[c+d\,x])}{\sqrt{\mathrm{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(a+b)\,B\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A-A\,b-a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,A\,b+a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{B\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$-\frac{1}{d\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)}$$

$$\sqrt{\frac{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(a\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-a\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,a\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$4\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,a\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,B\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,(A\,b+a\,(-A+B))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{2\,A\,(a+b)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A+A\,b+a\,B-b\,B)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{4\,b\,B\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{b+a\,\mathrm{Sec}[c+d\,x]}{a+b}}}$$

$$2\,\mathrm{Sec}[c+d\,x]\left(i\,A\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\ \frac{2\,a}{a+b}\right]+\right.$$

$$\sqrt{2}\,a\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])}{a^2\,(-1+\mathrm{Cos}[c+d\,x])^2}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a-b}}$$

$$\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{-\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a\,(-1+\mathrm{Cos}[c+d\,x])}}\right],\ \frac{2\,a}{a-b}\right]-\mathrm{EllipticPi}\left[-\frac{a}{b},\ \mathrm{ArcSin}\left[\sqrt{-\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a\,(-1+\mathrm{Cos}[c+d\,x])}}\right],\ \frac{2\,a}{a-b}\right]\right)$$

$$\left.\sqrt{1+\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{b+a\,\mathrm{Sec}[c+d\,x]}{a+b}}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x]),\ x,\ 9,\ 0\right\}$$

$$\frac{(a+b)\left(24a^2Ab+128Ab^3-9a^3B+156ab^2B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{192b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}$$

$$+\frac{1}{96bd\sqrt{a+b\,\text{Cos}[c+dx]}}\left(56a^2Ab-208aAb^2+3a^3B-114a^2bB+36ab^2B-72b^3B\right)$$

$$\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{32b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}\left(8a^3Ab-96aAb^3-3a^4B-24a^2b^2B-48b^4B\right)\sqrt{1+\text{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(56aAb+3a^2B+36b^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{96bd}+$$

$$\frac{(8Ab+9aB)\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{24d}+\frac{bB\,\text{Cos}[c+dx]^{5/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d}+$$

$$\frac{\left(24a^2Ab+128Ab^3-9a^3B+156ab^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{192b^2d}$$

$$-\frac{1}{384bd}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(-136a^2Ab-128Ab^3+3a^3B-228ab^2B\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(-416aAb^2-228a^2bB-144b^3B\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-24\,a^2\,A\,b-128\,A\,b^3+9\,a^3\,B-156\,a\,b^2\,B\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}$$

$$2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{(56\,a\,A\,b+3\,a^2\,B+42\,b^2\,B)\,\text{Sin}[c+d\,x]}{96\,b}+\frac{1}{48}(8\,A\,b+9\,a\,B)\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{16}\,b\,B\,\text{Sin}[3\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x]),\,x,\,8,\,0\right\}$$

$$\frac{(a+b)\left(30\,a\,A\,b+3\,a^2\,B+16\,b^2\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{24\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\left(24\,a^2\,A-6\,a\,A\,b+12\,A\,b^2-7\,a^2\,B+26\,a\,b\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{12\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(6\,a^2\,A\,b+8\,A\,b^3-a^3\,B+12\,a\,b^2\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{4\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(6\,A\,b+7\,a\,B)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,d}+\frac{b\,B\,\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{\left(30\,a\,A\,b+3\,a^2\,B+16\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{24\,b\,d}$$

$$\frac{1}{48\,d}\left(-\left(4\,a\,\left(42\,a\,A\,b+17\,a^2\,B+16\,b^2\,B\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\,\left(48\,a^2\,A+24\,A\,b^2+52\,a\,b\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(30\,a\,A\,b+3\,a^2\,B+16\,b^2\,B\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{1}{12}\,(6\,A\,b+7\,a\,B)\,\mathrm{Sin}[c+d\,x]+\frac{1}{6}\,b\,B\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\sqrt{\mathrm{Cos}[c+d\,x]}},\;x,\;7,\;0\right\}$$

$$\frac{(a+b)\,(4\,A\,b+5\,a\,B)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a^2\,A-8\,a\,A\,b-4\,a^2\,B+a\,b\,B-2\,b^2\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(12\,a\,A\,b+3\,a^2\,B+4\,b^2\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{b\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{(4\,A\,b+5\,a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d}$$

$$\frac{b\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,\left(8\,a^2\,A+4\,A\,b^2+7\,a\,b\,B\right)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,\left(16\,a\,A\,b+8\,a^2\,B+4\,b^2\,B\right)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(4 A b^2+5 a b B\right)\left(\frac{i \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{a+b \operatorname{Cos}[c+d x]}\ \operatorname{EllipticE}\left[i \operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right], -\frac{2 a}{-a-b}\right] \operatorname{Sec}[c+d x]}{b \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\ \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b} 2 a\left(\left(a \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b)\right.$$

$$\left.\sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)-\left(a \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticPi}\left[-\frac{a}{b}, \operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2 a}{-a+b}\right] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left(b \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)\right)+\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{b \sqrt{\operatorname{Cos}[c+d x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b \operatorname{Cos}[c+d x])^{3/2}(A+B \operatorname{Cos}[c+d x])}{\operatorname{Cos}[c+d x]^{3/2}}, x, 7, 0\right\}$$

$$-\frac{(a+b)\,(2\,a\,A-b\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(a^2\,A+2\,a\,A\,b-A\,b^2+a^2\,B-2\,a\,b\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b\,(2\,A\,b+3\,a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(2\,a\,A-b\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,d}\left(\left(4\,a\,\left(-2\,a\,A\,b-2\,a^2\,B-b^2\,B\right)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+4\,a\,\left(2\,a^2\,A-2\,A\,b^2-4\,a\,b\,B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)-$$

$$2\left(2\,a\,A\,b-b^2\,B\right)\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(a+b)\,(4\,A\,b+3\,a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(a^2\,A+4\,a\,A\,b+3\,A\,b^2+3\,a^2\,B+6\,a\,b\,B-3\,b^2\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^2\,B\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,(4\,A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,d\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3d}\left(-\left(4a\left(a^2A-Ab^2+3abB\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-4a\left(-4aAb-3a^2B+3b^2B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(-4Ab^2-3abB\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{2}{3}\mathrm{Sec}[c+dx]\,(4Ab\,\mathrm{Sin}[c+dx]+3aB\,\mathrm{Sin}[c+dx])+\frac{2}{3}aA\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\Big)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,(A+B\,\mathrm{Cos}[c+dx])}{\mathrm{Cos}[c+dx]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(147\,a^4\,A+186\,a^3\,A\,b+33\,a^2\,A\,b^2+2\,a\,A\,b^3+8\,A\,b^4+75\,a^4\,B+246\,a^3\,b\,B+153\,a^2\,b^2\,B-18\,a\,b^3\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}+$$

$$\frac{2\,(10\,A\,b+9\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{63\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,\left(49\,a^2\,A+3\,A\,b^2+72\,a\,b\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{315\,a\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(88\,a^2\,A\,b-4\,A\,b^3+75\,a^3\,B+9\,a\,b^2\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{315\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)}$$

$$2\,\sqrt{\frac{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\,\left(8\,A\,b^3-6\,a\,b^2\,(A+3\,B)+3\,a^3\,(49\,A+25\,B)+3\,a^2\,b\,(13\,A+57\,B)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)+$$

$$\frac{1}{d}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\Bigg(\frac{2}{63}\,\text{Sec}[c+d\,x]^4\,(10\,A\,b\,\text{Sin}[c+d\,x]+9\,a\,B\,\text{Sin}[c+d\,x])+$$

$$\frac{2\,\text{Sec}[c+d\,x]^3\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+72\,a\,b\,B\,\text{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,\left(88\,a^2\,A\,b\,\text{Sin}[c+d\,x]-4\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]+9\,a\,b^2\,B\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+$$

$$\frac{1}{315\,a^3}\,2\,\text{Sec}[c+d\,x]\,\left(147\,a^4\,A\,\text{Sin}[c+d\,x]+33\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+8\,A\,b^4\,\text{Sin}[c+d\,x]+\right.$$

$$\left.246\,a^3\,b\,B\,\text{Sin}[c+d\,x]-18\,a\,b^3\,B\,\text{Sin}[c+d\,x]\right)+\frac{2}{9}\,a\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x]),\ x,\ 10,\ 0\right\}$$

$$\frac{1}{1920\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(150\,a^3\,A\,b+2840\,a\,A\,b^3-45\,a^4\,B+1692\,a^2\,b^2\,B+1024\,b^4\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+\frac{1}{960\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(590\,a^3\,A\,b-3220\,a^2\,A\,b^2+360\,a\,A\,b^3-720\,A\,b^4+15\,a^4\,B-1146\,a^3\,b\,B+772\,a^2\,b^2\,B-2312\,a\,b^3\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\ \sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]-$$

$$\frac{1}{64\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(10\,a^4\,A\,b-240\,a^2\,A\,b^3-96\,A\,b^5-3\,a^5\,B-40\,a^3\,b^2\,B-240\,a\,b^4\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\ \sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\ \text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+$$

$$\frac{\left(590\,a^2\,A\,b+360\,A\,b^3+15\,a^3\,B+772\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{960\,b\,d}+$$

$$\frac{\left(170\,a\,A\,b+93\,a^2\,B+64\,b^2\,B\right)\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{240\,d}+$$

$$\frac{b\,(10\,A\,b+13\,a\,B)\,\text{Cos}[c+d\,x]^{5/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{40\,d}+\frac{b\,B\,\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{\left(150\,a^3\,A\,b+2840\,a\,A\,b^3-45\,a^4\,B+1692\,a^2\,b^2\,B+1024\,b^4\,B\right)\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{1920\,b^2\,d}$$

$$-\frac{1}{3840\,b\,d}\left(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\,\left(-1330\,a^3\,A\,b-3560\,a\,A\,b^3+15\,a^4\,B-3236\,a^2\,b^2\,B-1024\,b^4\,B\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\ \sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\ \sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\ \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-6440\,a^2\,A\,b^2-1440\,A\,b^4-2292\,a^3\,b\,B-4624\,a\,b^3\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\right.\right.$$

$$\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\Big[$$

$$\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-150\,a^3\,A\,b-2840\,a\,A\,b^3+45\,a^4\,B-1692\,a^2\,b^2\,B-1024\,b^4\,B\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{\left(590a^2Ab+420Ab^3+15a^3B+898ab^2B\right)\mathrm{Sin}[c+dx]}{960b}+\right.$$

$$\frac{1}{480}\left(170aAb+93a^2B+88b^2B\right)\mathrm{Sin}[2(c+dx)]+\frac{1}{160}b(10Ab+21aB)\mathrm{Sin}[3(c+dx)]+\frac{1}{40}b^2B\,\mathrm{Sin}[4(c+dx)]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,(A+B\,\mathrm{Cos}[c+dx]),\ x,\ 9,\ 0\right\}$$

$$\frac{1}{192\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{96\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(192\,a^3\,A-104\,a^2\,A\,b+304\,a\,A\,b^2-59\,a^3\,B+322\,a^2\,b\,B-36\,a\,b^2\,B+72\,b^3\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{1}{32\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(40\,a^3\,A\,b+160\,a\,A\,b^3-5\,a^4\,B+120\,a^2\,b^2\,B+48\,b^4\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(104\,a\,A\,b+59\,a^2\,B+36\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{96\,d}+$$

$$\frac{b\,(8\,A\,b+11\,a\,B)\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d}+\frac{b\,B\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d}+$$

$$\frac{\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d}$$

$$\frac{1}{384\,d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\,\left(472\,a^2\,A\,b+128\,A\,b^3+133\,a^3\,B+356\,a\,b^2\,B\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(384\,a^3\,A+608\,a\,A\,b^2+644\,a^2\,b\,B+144\,b^3\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{1}{96}\left(104\,a\,A\,b+59\,a^2\,B+42\,b^2\,B\right)\mathrm{Sin}[c+dx]+\right.$$

$$\frac{1}{48}b\,(8\,A\,b+17\,a\,B)\,\mathrm{Sin}[2\,(c+dx)]+\frac{1}{16}b^2\,B\,\mathrm{Sin}[3\,(c+dx)]\Big)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,(A+B\,\mathrm{Cos}[c+dx])}{\sqrt{\mathrm{Cos}[c+dx]}},\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(54\,a\,A\,b+33\,a^2\,B+16\,b^2\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{24\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(24\,a^3\,A-72\,a^2\,A\,b+6\,a\,A\,b^2-12\,A\,b^3-24\,a^3\,B+13\,a^2\,b\,B-38\,a\,b^2\,B\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(30\,a^2\,A\,b+8\,A\,b^3+5\,a^3\,B+20\,a\,b^2\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{b\,(2\,A\,b+3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{b\,B\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{\left(54\,a\,A\,b+33\,a^2\,B+16\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d}$$

$$\frac{1}{48\,d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\,\left(48\,a^3\,A+66\,a\,A\,b^2+59\,a^2\,b\,B+16\,b^3\,B\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(144\,a^2\,A\,b+24\,A\,b^3+48\,a^3\,B+76\,a\,b^2\,B\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\left.

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\left(\frac{1}{12}b(6Ab+13aB)\operatorname{Sin}[c+d x]+\frac{1}{6}b^2B\operatorname{Sin}[2(c+d x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\operatorname{Cos}[c+d x])^{5/2}(A+B\operatorname{Cos}[c+d x])}{\operatorname{Cos}[c+d x]^{3/2}},x,8,0\right\}$$

$$-\frac{(a+b)\left(8a^2A-4Ab^2-9abB\right)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4d\sqrt{a+b\operatorname{Cos}[c+d x]}}+$$

$$\frac{1}{2d\sqrt{a+b\operatorname{Cos}[c+d x]}}\left(4a^3A+12a^2Ab-12aAb^2+4a^3B-12a^2bB+ab^2B-2b^3B\right)$$

$$\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{b\left(20aAb+15a^2B+4b^2B\right)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticPi}\left[-1,\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2d\sqrt{a+b\operatorname{Cos}[c+d x]}}-$$

$$\frac{b(4aA-bB)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{2d}+\frac{2aA(a+b\operatorname{Cos}[c+d x])^{3/2}\operatorname{Sin}[c+d x]}{d\sqrt{\operatorname{Cos}[c+d x]}}-$$

$$\frac{\left(8a^2A-4Ab^2-9abB\right)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{4d}$$

$$\frac{1}{8\,d}\left(\left(4\,a\left(-16\,a^2\,A\,b-4\,A\,b^3-8\,a^3\,B-11\,a\,b^2\,B\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$4\,a\left(8\,a^3\,A-24\,a\,A\,b^2-24\,a^2\,b\,B-4\,b^3\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(8\,a^2\,A\,b-4\,A\,b^3-9\,a\,b^2\,B\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{1}{2}\,b^2\,B\,\mathrm{Sin}[c+d\,x]+2\,a^2\,A\,\mathrm{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{5/2}},\;x,\;8,\;0\right\}$$

$$-\frac{(a+b)\,\left(14\,a\,A\,b+6\,a^2\,B-3\,b^2\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,\left(a^3\,A+7\,a^2\,A\,b+9\,a\,A\,b^2-3\,A\,b^3+3\,a^3\,B+9\,a^2\,b\,B-9\,a\,b^2\,B\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,b^2\,(2\,A\,b+5\,a\,B)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(2\,A\,b+a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+\frac{2\,a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{\left(14\,a\,A\,b+6\,a^2\,B-3\,b^2\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}$$

$$\frac{1}{6\,d}\left(-\left(4\,a\left(2\,a^3\,A+4\,a\,A\,b^2+12\,a^2\,b\,B+3\,b^3\,B\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-14\,a^2\,A\,b+6\,A\,b^3-6\,a^3\,B+18\,a\,b^2\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-14\,a\,A\,b^2-6\,a^2\,b\,B+3\,b^3\,B\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{2}{3}\,\mathrm{Sec}[c+d\,x]\,\left(7\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+3\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{3}\,a^2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{7/2}},\;x,\;8,\;0\right\}$$

$$-\frac{2\,(a+b)\,\left(9\,a^2\,A+23\,A\,b^2+35\,a\,b\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,\left(9\,a^3\,A+17\,a^2\,A\,b+23\,a\,A\,b^2+15\,A\,b^3+5\,a^3\,B+35\,a^2\,b\,B+45\,a\,b^2\,B-15\,b^3\,B\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^3\,B\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(8\,A\,b+5\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{15\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(9\,a^2\,A+23\,A\,b^2+35\,a\,b\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{15\,d}\left(\left(4\,a\left(-8\,a^2\,A\,b+8\,A\,b^3-5\,a^3\,B-10\,a\,b^2\,B\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$4\,a\left(9\,a^3\,A+23\,a\,A\,b^2+35\,a^2\,b\,B-15\,b^3\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)-2\left(9a^2Ab+23Ab^3+35ab^2B\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}\,(c+d\,x)\Big]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\Bigg(\frac{2}{15}\,\mathrm{Sec}[c+d\,x]^2\,\left(11\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{15}\,\mathrm{Sec}[c+d\,x]\,\left(9\,a^2\,A\,\mathrm{Sin}[c+d\,x]+23\,A\,b^2\,\mathrm{Sin}[c+d\,x]+35\,a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{5}\,a^2\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+\frac{1}{315\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$2\,\left(147\,a^4\,A+261\,a^3\,A\,b+279\,a^2\,A\,b^2+155\,a\,A\,b^3-10\,A\,b^4+75\,a^4\,B+435\,a^3\,b\,B+405\,a^2\,b^2\,B+45\,a\,b^3\,B\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+$$

$$\frac{2\,a\,(4\,A\,b+3\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{21\,d\,\mathrm{Cos}[c+d\,x]^{7/2}}+\frac{2\,\left(49\,a^2\,A+75\,A\,b^2+135\,a\,b\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{315\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(163\,a^2\,A\,b+5\,A\,b^3+75\,a^3\,B+135\,a\,b^2\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{315\,a\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{9\,d\,\mathrm{Cos}[c+d\,x]^{9/2}}+$$

$$\frac{2\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{315\,a^2\,d\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)}$$

$$2\sqrt{\frac{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\right.$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(-10\,A\,b^3+15\,a\,b^2\,(11\,A+3\,B)+3\,a^3\,(49\,A+25\,B)+6\,a^2\,b\,(19\,A+60\,B)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{2}{63}\mathrm{Sec}[c+d\,x]^4\left(19\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+9\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\right.$$

$$\frac{2}{315}\mathrm{Sec}[c+d\,x]^3\left(49\,a^2\,A\,\mathrm{Sin}[c+d\,x]+75\,A\,b^2\,\mathrm{Sin}[c+d\,x]+135\,a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\mathrm{Sec}[c+d\,x]^2\left(163\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,A\,b^3\,\mathrm{Sin}[c+d\,x]+75\,a^3\,B\,\mathrm{Sin}[c+d\,x]+135\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{1}{315\,a^2}2\,\mathrm{Sec}[c+d\,x]\left(147\,a^4\,A\,\mathrm{Sin}[c+d\,x]+279\,a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]-10\,A\,b^4\,\mathrm{Sin}[c+d\,x]+\right.$$

$$\left.\left.435\,a^3\,b\,B\,\mathrm{Sin}[c+d\,x]+45\,a\,b^3\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{9}a^2\,A\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Cos}[c+d\,x]^{13/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{3465\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{3465\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(675\,a^5\,A+3705\,a^4\,A\,b+3315\,a^3\,A\,b^2+255\,a^2\,A\,b^3+10\,a\,A\,b^4+40\,A\,b^5+1617\,a^5\,B+2871\,a^4\,b\,B+3069\,a^3\,b^2\,B+1705\,a^2\,b^3\,B-\right.$$

$$\left.110\,a\,b^4\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,a\,(14\,A\,b+11\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{99\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{2\,\left(81\,a^2\,A+113\,A\,b^2+209\,a\,b\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{693\,d\,\text{Cos}[c+d\,x]^{7/2}}+$$

$$\frac{2\,\left(1145\,a^2\,A\,b+15\,A\,b^3+539\,a^3\,B+825\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3465\,a\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(675\,a^4\,A+1025\,a^2\,A\,b^2-20\,A\,b^4+1793\,a^3\,b\,B+55\,a\,b^3\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3465\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,a\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{11\,d\,\text{Cos}[c+d\,x]^{11/2}}+$$

$$\frac{2\,\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3465\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3465\,a^3\,d}\left(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right.$$

$$4\,a\,\left(675\,a^6\,A-390\,a^4\,A\,b^2-245\,a^2\,A\,b^4-40\,A\,b^6+1254\,a^5\,b\,B-1364\,a^3\,b^3\,B+110\,a\,b^5\,B\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-3705\,a^5\,A\,b-255\,a^3\,A\,b^3-40\,a\,A\,b^5-1617\,a^6\,B-3069\,a^4\,b^2\,B+110\,a^2\,b^4\,B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(-3705\,a^4\,A\,b^2-255\,a^2\,A\,b^4-40\,A\,b^6-1617\,a^5\,b\,B-3069\,a^3\,b^3\,B+110\,a\,b^5\,B\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2}{99}\mathrm{Sec}[c+dx]^5\left(23aAb\,\mathrm{Sin}[c+dx]+11a^2B\,\mathrm{Sin}[c+dx]\right)+\right.$$

$$\frac{2}{693}\mathrm{Sec}[c+dx]^4\left(81a^2A\,\mathrm{Sin}[c+dx]+113Ab^2\,\mathrm{Sin}[c+dx]+209abB\,\mathrm{Sin}[c+dx]\right)+$$

$$\frac{2\,\mathrm{Sec}[c+dx]^3\left(1145a^2Ab\,\mathrm{Sin}[c+dx]+15Ab^3\,\mathrm{Sin}[c+dx]+539a^3B\,\mathrm{Sin}[c+dx]+825ab^2B\,\mathrm{Sin}[c+dx]\right)}{3465a}+$$

$$\frac{1}{3465a^2}2\,\mathrm{Sec}[c+dx]^2$$

$$\left(675a^4A\,\mathrm{Sin}[c+dx]+1025a^2Ab^2\,\mathrm{Sin}[c+dx]-20Ab^4\,\mathrm{Sin}[c+dx]+1793a^3bB\,\mathrm{Sin}[c+dx]+55ab^3B\,\mathrm{Sin}[c+dx]\right)+$$

$$\frac{1}{3465a^3}2\,\mathrm{Sec}[c+dx]\left(3705a^4Ab\,\mathrm{Sin}[c+dx]+255a^2Ab^3\,\mathrm{Sin}[c+dx]+40Ab^5\,\mathrm{Sin}[c+dx]+\right.$$

$$\left.\left.1617a^5B\,\mathrm{Sin}[c+dx]+3069a^3b^2B\,\mathrm{Sin}[c+dx]-110ab^4B\,\mathrm{Sin}[c+dx]\right)+\frac{2}{11}a^2A\,\mathrm{Sec}[c+dx]^5\,\mathrm{Tan}[c+dx]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{3/2}\,(A+B\,\mathrm{Cos}[c+dx])}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},\ x,\ 7,\ 0\right\}$$

$$\frac{(a+b)\,(4\,A\,b-3\,a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(a-2\,b)\,B\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\left(4\,a\,A\,b-3\,a^2\,B-4\,b^2\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d}+\frac{(4\,A\,b-3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^2\,d}$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d}+$$

$$\frac{1}{8\,b\,d}\Bigg(-\Bigg(4\,a\,(4\,A\,b-a\,B)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$16\,a\,b\,B\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\left(\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2(4Ab-3aB)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{\left(2\,a\,A\,b-3\,a^2\,B+b^2\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,A\,b-3\,a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{\left(2\,a\,A\,b-3\,a^2\,B+b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b^2\,\left(a^2-b^2\right)\,d}$$

$$-\frac{2\sqrt{\text{Cos}[c+d\,x]}\,\left(-a\,A\,b\,\text{Sin}[c+d\,x]+a^2\,B\,\text{Sin}[c+d\,x]\right)}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,(a-b)\,b\,(a+b)\,d}\left(-\left(4\,a\,\left(a^2\,B-b^2\,B\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,\left(-2\,A\,b^2+2\,a\,b\,B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(-2\,a\,A\,b+3\,a^2\,B-b^2\,B\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;(A+B\,\mathrm{Cos}[c+d\,x])}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;6,\;0\right\}$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A-B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,B\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,(-A\,b\,\text{Sin}[c+d\,x]+a\,B\,\text{Sin}[c+d\,x])}{\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{1}{(-a+b)\,(a+b)\,d}\left(-4\,a\,(a\,A-b\,B)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Big/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\right)+\right.$$

$$2(A b-a B)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Big/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\right)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\operatorname{Cos}[c+d x]}{\sqrt{\operatorname{Cos}[c+d x]}(a+b\operatorname{Cos}[c+d x])^{3/2}},x,4,0\right\}$$

$$-\frac{2\,(A\,b-a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A-B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{1}{\left(a^3-a\,b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\sqrt{\text{Cos}[c+d\,x]}\,\Bigg(b\,(A\,b-a\,B)\,\text{Sin}[c+d\,x]+$$

$$\Bigg(2\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\Bigg((a+b)\,\Bigg((-A\,b+a\,B)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(A-B)\,\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\Big]\Bigg)\,\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$(A\,b-a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\left(\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,(1+\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A-2\,A\,b+a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b\,(A\,b-a\,B)\,\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{a^2(-a+b)(a+b)d}\left(-\left(4a\left(2a^2Ab-2Ab^3-a^3B+ab^2B\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-4a\left(a^3A-2aAb^2+a^2bB\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(a^2Ab-2Ab^3+ab^2B\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\left(\frac{2\left(-Ab^3\,\mathrm{Sin}[c+dx]+ab^2B\,\mathrm{Sin}[c+dx]\right)}{a^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])}+\frac{2A\,\mathrm{Tan}[c+dx]}{a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+dx]}{\mathrm{Cos}[c+dx]^{5/2}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^3(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^2A-6aAb+8Ab^2+3a^2B-6abB\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2b(Ab-aB)\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2\left(a^2A-4Ab^2+3abB\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{3a^3(a-b)(a+b)\,d}$$

$$\Bigg(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(a^4A+7a^2Ab^2-8Ab^4-6a^3bB+6ab^3B\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(5a^3Ab-8aAb^3-3a^4B+6a^2b^2B\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{2\,\text{Sec}[c+d\,x]\,(-5\,A\,b\,\text{Sin}[c+d\,x]+3\,a\,B\,\text{Sin}[c+d\,x])}{3\,a^3}-\frac{2\left(-A\,b^4\,\text{Sin}[c+d\,x]+a\,b^3\,B\,\text{Sin}[c+d\,x]\right)}{a^3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])}+\frac{2\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{3\,a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 8,\ 0\right\}$$

$$-\left(\left(6 a^3 A b-14 a A b^3-15 a^4 B+26 a^2 b^2 B-3 b^4 B\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^3(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(2\left(2 a^2 A b-3 a A b^2-3 A b^3-5 a^3 B+3 a^2 b B+6 a b^2 B\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^2(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{2(2 A b-5 a B) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{b^3 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 a(A b-a B) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^{3/2}}+$$

$$\frac{2 a\left(2 a^2 A b-6 A b^3-5 a^3 B+9 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(6 a^3 A b-14 a A b^3-15 a^4 B+26 a^2 b^2 B-3 b^4 B\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d}$$

$$\frac{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\left(\frac{2\left(-a^2 A b \text{Sin}[c+d x]+a^3 B \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}-\frac{2\left(-3 a^3 A b \text{Sin}[c+d x]+7 a A b^3 \text{Sin}[c+d x]+6 a^4 B \text{Sin}[c+d x]-10 a^2 b^2 B \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)}{d}+$$

$$\frac{1}{6(a-b)^2 b^2(a+b)^2 d}$$

$$\left(-\frac{1}{(a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}} 4 a\left(-2 a^3 A b+2 a A b^3+5 a^4 B-8 a^2 b^2 B+3 b^4 B\right) \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \text{Csc}[c+d x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4 -$$

$$4\,a\,\left(2\,a^2\,A\,b^2+6\,A\,b^4+4\,a^3\,b\,B-12\,a\,b^3\,B\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\right)+2\,\left(-6\,a^3\,A\,b+14\,a\,A\,b^3+15\,a^4\,B-26\,a^2\,b^2\,B+3\,b^4\,B\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\left(4Ab^3+3a^3B-7ab^2B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3(a-b)^2b^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(aAb+3Ab^2+2a^2B-3abB-3b^2B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3(a-b)^2b(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{4B\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2a(Ab-aB)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}-\frac{2\left(4Ab^3+3a^3B-7ab^2B\right)\sqrt{\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3(a-b)\,b^2(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}$$

$$\frac{\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\left(-\frac{2\left(-aAb\,\text{Sin}[c+dx]+a^2B\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\frac{2\left(4Ab^3\,\text{Sin}[c+dx]+3a^3B\,\text{Sin}[c+dx]-7ab^2B\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)}{d}-$$

$$\frac{1}{3(a-b)^2b(a+b)^2d}\left(-\left(4a\left(-a^2Ab+Ab^3+a^3B-ab^2B\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-4a\left(4aAb^2-a^2bB-3b^3B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\,\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2\left(4Ab^3+3a^3B-7ab^2B\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,5,\,0\right\}$$

$$\frac{2\left(3\,a^2\,A+A\,b^2-4\,a\,b\,B\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(3\,a\,A+A\,b-a\,B-3\,b\,B)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A\,b-a\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{2\left(3\,a^2\,A+A\,b^2-4\,a\,b\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,a\,(a-b)\,(a+b)^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{2\left(-A\,b\,\text{Sin}[c+d x]+a\,B\,\text{Sin}[c+d x]\right)}{3\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d x]\right)^2}-\frac{2\left(3\,a^2\,A\,b\,\text{Sin}[c+d x]+A\,b^3\,\text{Sin}[c+d x]-4\,a\,b^2\,B\,\text{Sin}[c+d x]\right)}{3\,a\left(a^2-b^2\right)^2\left(a+b\,\text{Cos}[c+d x]\right)}\right)}{d}-$$

$$\left(4\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\sqrt{\text{Cos}[c+d x]}\right.$$

$$\left(-(a+b)\left(\left(3\,a^2\,A+A\,b^2-4\,a\,b\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+a\left(-3\,a\,A-A\,b+a\,B+3\,b\,B\right)\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\right)\sqrt{\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$\left.\left.\left(3\,a^2\,A+A\,b^2-4\,a\,b\,B\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\right)\Big/$$

$$\left(3\,a\left(a^2-b^2\right)^2 d\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\,(1+\text{Cos}[c+d x])^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]}{\sqrt{\text{Cos}[c+d x]}\,(a+b\,\text{Cos}[c+d x])^{5/2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a^2\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2\left(3\,a^2\,A+3\,a\,A\,b-2\,A\,b^2-3\,a^2\,B-a\,b\,B\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2\,b\,(A\,b-a\,B)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3\,a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])^{3/2}}-\frac{2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\sqrt{\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3\,a^2\,(a-b)\,(a+b)^2\,d\sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(-\frac{2\left(-A\,b^2\,\text{Sin}[c+d\,x]+a\,b\,B\,\text{Sin}[c+d\,x]\right)}{3\,a\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{2\left(-6\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+2\,A\,b^4\,\text{Sin}[c+d\,x]+3\,a^3\,b\,B\,\text{Sin}[c+d\,x]+a\,b^3\,B\,\text{Sin}[c+d\,x]\right)}{3\,a^2\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+$$

$$\frac{1}{3\,a^2\,(a-b)^2\,(a+b)^2\,d}$$

$$\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\,\left(3\,a^4\,A-5\,a^2\,A\,b^2+2\,A\,b^4-a^3\,b\,B+a\,b^3\,B\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-6\,a^3\,A\,b+2\,a\,A\,b^3+3\,a^4\,B+a^2\,b^2\,B\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-6\,a^2\,A\,b^2+2\,A\,b^4+3\,a^3\,b\,B+a\,b^3\,B\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,6,\,0\right\}$$

$$-\left(2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3A-9a^2Ab-6aAb^2+8Ab^3+3a^3B+3a^2bB-2ab^2B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2b(Ab-aB)\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{2b\left(8a^2Ab-4Ab^3-5a^3B+ab^2B\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}}$$

$$-\frac{1}{3a^3(a-b)^2(a+b)^2d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(9a^4Ab-17a^2Ab^3+8Ab^5-3a^5B+5a^3b^2B-2ab^4B\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(3a^5A-15a^3Ab^2+8aAb^4+6a^4bB-2a^2b^3B\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{2\left(-A\,b^3\,\text{Sin}[c+d\,x]+a\,b^2\,B\,\text{Sin}[c+d\,x]\right)}{3\,a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{2\left(-9\,a^2\,A\,b^3\,\text{Sin}[c+d\,x]+5\,A\,b^5\,\text{Sin}[c+d\,x]+6\,a^3\,b^2\,B\,\text{Sin}[c+d\,x]-2\,a\,b^4\,B\,\text{Sin}[c+d\,x]\right)}{3\,a^3\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}+$$

$$\left.\frac{2\,A\,\text{Tan}[c+d\,x]}{a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,7,\,0\right\}$$

$$\left(2\left(8a^4Ab-28a^2Ab^3+16Ab^5-3a^5B+15a^3b^2B-8ab^4B\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^4(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(a^4A-9a^3Ab+16a^2Ab^2+12aAb^3-16Ab^4+3a^4B-9a^3bB-6a^2b^2B+8ab^3B\right)\sqrt{1+\text{Cos}[c+dx]}\right.$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2b(Ab-aB)\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{2b\left(10a^2Ab-6Ab^3-7a^3B+3ab^2B\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^4A-13a^2Ab^2+8Ab^4+8a^3bB-4ab^3B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{2\left(8a^4Ab-28a^2Ab^3+16Ab^5-3a^5B+15a^3b^2B-8ab^4B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^4\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{3a^4(a-b)^2(a+b)^2d}$$

$$\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(a^6A+15a^4Ab^2-32a^2Ab^4+16Ab^6-9a^5bB+17a^3b^3B-8ab^5B\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(8a^5Ab-28a^3Ab^3+16aAb^5-3a^6B+15a^4b^2B-8a^2b^4B\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Big)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(8\,a^4\,A\,b^2-28\,a^2\,A\,b^4+16\,A\,b^6-3\,a^5\,b\,B+15\,a^3\,b^3\,B-8\,a\,b^5\,B\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2\,\mathrm{Sec}[c+dx]\,(-8Ab\,\mathrm{Sin}[c+dx]+3aB\,\mathrm{Sin}[c+dx])}{3a^4}-\right.$$

$$\frac{2\left(-Ab^4\,\mathrm{Sin}[c+dx]+ab^3B\,\mathrm{Sin}[c+dx]\right)}{3a^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}-$$

$$\frac{2\left(-12a^2Ab^4\,\mathrm{Sin}[c+dx]+8Ab^6\,\mathrm{Sin}[c+dx]+9a^3b^3B\,\mathrm{Sin}[c+dx]-5ab^5B\,\mathrm{Sin}[c+dx]\right)}{3a^4\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])}+$$

$$\left.\frac{2A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{3a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{aB+bB\,\mathrm{Cos}[c+dx]}{\mathrm{Cos}[c+dx]^{3/2}(a+b\,\mathrm{Cos}[c+dx])^{3/2}},x,5,0\right\}$$

$$-\frac{2(a+b)B\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{ad\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2B\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+\frac{2B\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{ad\sqrt{\mathrm{Cos}[c+dx]}}$$

$$\frac{1}{a\,d\,\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,B\left(\frac{1}{2}(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[2\,(c+d\,x)]-2\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\left(\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)^{3/2}\sqrt{1+\text{Cos}[c+d\,x]}\right.$$

$$\left((a+b)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-\right.$$

$$a\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$\left.\left.(a+b\,\text{Cos}[c+d\,x])\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}{a+b\,\text{Cos}[c+d\,x]},\ x,\ 8,\ 0\right\}$$

$$\frac{2\,(A\,b-a\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,d}+$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,d}+$$

$$\frac{2\,b\,(A\,b-a\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}(c+d\,x),\ 2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^2\,(a+b)\,d}-$$

$$\frac{2\,(A\,b-a\,B)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a^2\,d}+\frac{2\,A\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}$$

$$\frac{1}{6 a^2 d}\left(-\left(2 \left(8 a A b-6 a^2 B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(2 a^2 A+9 A b^2-9 a b B\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(3 A b^2-3 a b B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{2 (-A b+a B) \text{Sin}[c+d x]}{a^2}+\frac{2 A \text{Tan}[c+d x]}{3 a}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{(a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2}}, x, 7, 0\right\}$$

$$\frac{2 (A b-a B) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^2 d}-\frac{2 \left(3 a A b-3 a^2 B-b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 b^3 d}+\frac{2 a^2 (A b-a B) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^3 (a+b) d}+\frac{2 B \text{Sin}[c+d x]}{3 b d \sqrt{\text{Sec}[c+d x]}}$$

$$-\frac{1}{6 b d}\left(-2 B \sqrt{\text{Sec}[c+d x]} \text{Sin}[2 (c+d x)]+4 B \text{Cot}[c+d x] \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{-\text{Tan}[c+d x]^2}+\frac{1}{a} 2 (-3 A b+a B) \text{Cot}[c+d x] \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) \sqrt{-\text{Tan}[c+d x]^2}+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}} 6 (A b-a B) \text{Csc}[c+d x] (b+a \text{Sec}[c+d x]) \left(2 a b-2 a b \text{Sec}[c+d x]^2+2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}-(2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}-2 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}+b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{2\left(5\,a\,A\,b-5\,a^2\,B-3\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,b^3\,d}+$$

$$\frac{2\left(3\,a^2\,A\,b+A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,b^4\,d}-$$

$$\frac{2\,a^3\,(A\,b-a\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^4\,(a+b)\,d}+\frac{2\,B\,\mathrm{Sin}[c+d\,x]}{5\,b\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{2\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{30\,b^2\,d}$$

$$\Bigg(-\Bigg(2\left(-10\,A\,b^2-8\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right](b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}$$

$$\mathrm{Sin}[c+d\,x]\Bigg)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\Bigg(2\left(5\,a\,A\,b-5\,a^2\,B-9\,b^2\,B\right)\mathrm{Cos}[c+d\,x]^2$$

$$\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\right)$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\ \mathrm{Sin}[c+d\,x]\Bigg)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(15\,a\,A\,b-15\,a^2\,B-9\,b^2\,B\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Bigg(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Bigg)\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{B\,\mathrm{Sin}[c+d\,x]}{10\,b}+\frac{(A\,b-a\,B)\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^2}+\frac{B\,\mathrm{Sin}[3\,(c+d\,x)]}{10\,b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 9,\ 0\right\}$$

$$\frac{\left(4\,a^2\,A\,b-5\,A\,b^3-2\,a^3\,B+3\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2\,a^2\,A-5\,A\,b^2+3\,a\,b\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\left(a^2-b^2\right)d}+$$

$$\frac{b\left(7\,a^2\,A\,b-5\,A\,b^3-5\,a^3\,B+3\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{a^3\,(a-b)\,(a+b)^2\,d}-$$

$$\frac{\left(4\,a^2\,A\,b-5\,A\,b^3-2\,a^3\,B+3\,a\,b^2\,B\right)\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2\,a^2\,A-5\,A\,b^2+3\,a\,b\,B\right)\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)d}+\frac{b\,(A\,b-a\,B)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{12 a^3 (-a+b) (a+b) d}$$

$$\left(-\left(2 \left(-28 a^3 A b+40 a A b^3+12 a^4 B-24 a^2 b^2 B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right.\right.$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2 \left(-4 a^4 A-44 a^2 A b^2+45 A b^4+30 a^3 b B-27 a b^3 B\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-12 a^2 A b^2+15 A b^4+6 a^3 b B-9 a b^3 B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{\left(-4 a^2 A b+5 A b^3+2 a^3 B-3 a b^2 B\right) \text{Sin}[c+d x]}{a^3 \left(a^2-b^2\right)}+\frac{-A b^3 \text{Sin}[c+d x]+a b^2 B \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}+\frac{2 A \text{Tan}[c+d x]}{3 a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^2}, x, 8, 0\right\}$$

$$-\frac{\left(2 a^2 A-3 A b^2+a b B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 \left(a^2-b^2\right) d}+$$

$$\frac{(A b-a B) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a \left(a^2-b^2\right) d}-$$

$$\frac{\left(5 a^2 A b-3 A b^3-3 a^3 B+a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 (a-b) (a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-3 A b^2+a b B\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) d}+\frac{b (A b-a B) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{4 a^2 (a-b) (a+b) d}\left(-\left(2 \left(4 a^3 A-8 a A b^2+4 a^2 b B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(10 a^2 A b-9 A b^3-4 a^3 B+3 a b^2 B\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(2 a^2 A b-3 A b^3+a b^2 B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{\left(2 a^2 A-3 A b^2+a b B\right) \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right)}+\frac{A b^2 \text{Sin}[c+d x]-a b B \text{Sin}[c+d x]}{a \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^2}, x, 7, 0\right\}$$

$$-\frac{(A b-a B) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a \left(a^2-b^2\right) d}-\frac{(A b-a B) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b \left(a^2-b^2\right) d}+\frac{\left(3 a^2 A b-A b^3-a^3 B-a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a (a-b) b (a+b)^2 d}+\frac{b (A b-a B) \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{4\,a\,(-a+b)\,(a+b)\,d}\left(-\left(2\left(4\,a\,A\,b-4\,a^2\,B\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right](b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\left(2\left(-4\,a^2\,A+3\,A\,b^2+a\,b\,B\right)\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}\left(A\,b^2-a\,b\,B\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\right)+\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{(-A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)}+\frac{-A\,b\,\mathrm{Sin}[c+d\,x]+a\,B\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(A\,b-a\,B)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b\left(a^2-b^2\right)d}+\frac{\left(a\,A\,b+a^2\,B-2\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^2\left(a^2-b^2\right)d}-\frac{\left(a^2\,A\,b+A\,b^3+a^3\,B-3\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b^2\,(a+b)^2\,d}-\frac{(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a-b)\,(a+b)\,d}\left(-\left(2\,(4\,a\,A-4\,b\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\left(2\,(-A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(2-\mathrm{Sec}[c+d\,x]^2\right)}(A\,b-a\,B)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\right)+\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{b\,(-a^2+b^2)}-\frac{-a\,A\,b\,\mathrm{Sin}[c+d\,x]+a^2\,B\,\mathrm{Sin}[c+d\,x]}{b\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{\left(a\,A\,b-3\,a^2\,B+2\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^2\,\left(a^2-b^2\right)\,d}+\frac{\left(a^2\,A\,b-2\,A\,b^3-3\,a^3\,B+4\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^3\,\left(a^2-b^2\right)\,d}-\frac{a\,\left(a^2\,A\,b-3\,A\,b^3-3\,a^3\,B+5\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b^3\,(a+b)^2\,d}+\frac{a\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,b\,(-a+b)\,(a+b)\,d}\left(-\left(2\,\left(4\,A\,b^2-4\,a\,b\,B\right)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\left(2\,\left(-a\,A\,b-a^2\,B+2\,b^2\,B\right)\,\mathrm{Cos}[c+d\,x]^2\,\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(2-\mathrm{Sec}[c+d\,x]^2\right)}\left(a\,A\,b-3\,a^2\,B+2\,b^2\,B\right)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\,\mathrm{Sin}[c+d\,x]\right)+\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{a\,(-A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(a^2-b^2\right)}-\frac{a^2\,A\,b\,\mathrm{Sin}[c+d\,x]-a^3\,B\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$\frac{\left(3\,a^2\,A\,b-2\,A\,b^3-5\,a^3\,B+4\,a\,b^2\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{b^3\,\left(a^2-b^2\right)\,d}-\frac{\left(9\,a^3\,A\,b-12\,a\,A\,b^3-15\,a^4\,B+16\,a^2\,b^2\,B+2\,b^4\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,b^4\,\left(a^2-b^2\right)\,d}+\frac{a^2\,\left(3\,a^2\,A\,b-5\,A\,b^3-5\,a^3\,B+7\,a\,b^2\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b^4\,(a+b)^2\,d}+\frac{a\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}-\frac{\left(3\,a\,A\,b-5\,a^2\,B+2\,b^2\,B\right)\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{12\,(a-b)\,b^2\,(a+b)\,d}\left(-\left(2\left(-12\,a\,A\,b^2+8\,a^2\,b\,B+4\,b^3\,B\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right](b+a\,\mathrm{Sec}[c+d\,x])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(-3\,a^2\,A\,b+6\,A\,b^3+5\,a^3\,B-8\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\right.\right.$$

$$\left.\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/$$

$$\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(-9\,a^2\,A\,b+6\,A\,b^3+15\,a^3\,B-12\,a\,b^2\,B\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{a^2\,(-A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{b^3\left(a^2-b^2\right)}+\frac{a^3\,A\,b\,\mathrm{Sin}[c+d\,x]-a^4\,B\,\mathrm{Sin}[c+d\,x]}{b^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])}+\frac{B\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\,x,\,10,\,0\right\}$$

$$\frac{\left(24\,a^4\,A\,b-65\,a^2\,A\,b^3+35\,A\,b^5-8\,a^5\,B+29\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^4\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4+33\,a^3\,b\,B-15\,a\,b^3\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{12\,a^3\left(a^2-b^2\right)^2\,d}+$$

$$\frac{b\left(63\,a^4\,A\,b-86\,a^2\,A\,b^3+35\,A\,b^5-35\,a^5\,B+38\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^4\,(a-b)^2\,(a+b)^3\,d}-$$

$$\frac{\left(24\,a^4\,A\,b-65\,a^2\,A\,b^3+35\,A\,b^5-8\,a^5\,B+29\,a^3\,b^2\,B-15\,a\,b^4\,B\right)\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,a^4\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4+33\,a^3\,b\,B-15\,a\,b^3\,B\right)\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{12\,a^3\left(a^2-b^2\right)^2\,d}+$$

$$\frac{b\,(A\,b-a\,B)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{2\,a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{b\left(13\,a^2\,A\,b-7\,A\,b^3-9\,a^3\,B+3\,a\,b^2\,B\right)\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,a^2\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}\left(-\left(2\left(160 a^5 A b-512 a^3 A b^3+280 a A b^5-48 a^6 B+240 a^4 b^2 B-120 a^2 b^4 B\right)\right.\right.$$
$$\left.\left.\operatorname{Cos}[c+d x]^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right](b+a \operatorname{Sec}[c+d x])\right.\right.$$
$$\left.\left.\sqrt{1-\operatorname{Sec}[c+d x]^2} \operatorname{Sin}[c+d x]\right)\Big/\left(b(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\right)+$$
$$\left(2\left(16 a^6 A+328 a^4 A b^2-641 a^2 A b^4+315 A b^6-168 a^5 b B+285 a^3 b^3 B-135 a b^5 B\right) \operatorname{Cos}[c+d x]^2\right.$$
$$\left(\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]+\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\right)$$
$$\left.(b+a \operatorname{Sec}[c+d x]) \sqrt{1-\operatorname{Sec}[c+d x]^2} \operatorname{Sin}[c+d x]\right)\Big/\left(a(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\right)+$$
$$\frac{1}{a b^2 (a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right) \sqrt{\operatorname{Sec}[c+d x]}\left(2-\operatorname{Sec}[c+d x]^2\right)}$$
$$\left(72 a^4 A b^2-195 a^2 A b^4+105 A b^6-24 a^5 b B+87 a^3 b^3 B-45 a b^5 B\right) \operatorname{Cos}[2(c+d x)](b+a \operatorname{Sec}[c+d x])$$
$$\left(-4 a b+4 a b \operatorname{Sec}[c+d x]^2-4 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}+\right.$$
$$2(2 a-b) b \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}+$$
$$4 a^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}-$$
$$\left.\left.2 b^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}\right) \operatorname{Sin}[c+d x]\right)+$$
$$\frac{1}{d} \sqrt{\operatorname{Sec}[c+d x]}\left(\frac{\left(-24 a^4 A b+65 a^2 A b^3-35 A b^5+8 a^5 B-29 a^3 b^2 B+15 a b^4 B\right) \operatorname{Sin}[c+d x]}{4 a^4\left(a^2-b^2\right)^2}+\right.$$
$$\frac{-A b^3 \operatorname{Sin}[c+d x]+a b^2 B \operatorname{Sin}[c+d x]}{2 a^2\left(a^2-b^2\right)(a+b \operatorname{Cos}[c+d x])^2}+$$
$$\left.\frac{-15 a^2 A b^3 \operatorname{Sin}[c+d x]+9 A b^5 \operatorname{Sin}[c+d x]+11 a^3 b^2 B \operatorname{Sin}[c+d x]-5 a b^4 B \operatorname{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2(a+b \operatorname{Cos}[c+d x])}+\frac{2 A \operatorname{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^{3/2}}{(a+b \operatorname{Cos}[c+d x])^3}, x, 9, 0\right\}$$
$$-\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{4 a^3\left(a^2-b^2\right)^2 d}+$$
$$\frac{\left(11 a^2 A b-5 A b^3-7 a^3 B+a b^2 B\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{4 a^2\left(a^2-b^2\right)^2 d}-$$
$$\frac{\left(35 a^4 A b-38 a^2 A b^3+15 A b^5-15 a^5 B+6 a^3 b^2 B-3 a b^4 B\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{4 a^3(a-b)^2(a+b)^3 d}+$$
$$\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B\right) \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2 d}+$$
$$\frac{b(A b-a B) \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{2 a\left(a^2-b^2\right) d(a+b \operatorname{Cos}[c+d x])^2}+\frac{b\left(11 a^2 A b-5 A b^3-7 a^3 B+a b^2 B\right) \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2 d(a+b \operatorname{Cos}[c+d x])}$$

$$-\frac{1}{16 a^3 (a-b)^2 (a+b)^2 d}\left(-\left(2\left(16 a^5 A-80 a^3 A b^2+40 a A b^4+32 a^4 b B-8 a^2 b^3 B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right.\right.$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2\left(56 a^4 A b-95 a^2 A b^3+45 A b^5-16 a^5 B+19 a^3 b^2 B-9 a b^4 B\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(8 a^4 A b-29 a^2 A b^3+15 A b^5+9 a^3 b^2 B-3 a b^4 B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+$$

$$\frac{1}{d}\sqrt{\text{Sec}[c+d x]}\left(\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B\right) \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2}+\right.$$

$$\frac{A b^2 \text{Sin}[c+d x]-a b B \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+$$

$$\left.\frac{11 a^2 A b^2 \text{Sin}[c+d x]-5 A b^4 \text{Sin}[c+d x]-7 a^3 b B \text{Sin}[c+d x]+a b^3 B \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{\left(9 a^2 A b-3 A b^3-5 a^3 B-a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(7 a^2 A b-A b^3-3 a^3 B-3 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a b \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(15 a^4 A b-6 a^2 A b^3+3 A b^5-3 a^5 B-10 a^3 b^2 B+a b^4 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 (a-b)^2 b (a+b)^3 d}+$$

$$\frac{b (A b-a B) \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}+\frac{b \left(9 a^2 A b-3 A b^3-5 a^3 B-a b^2 B\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16 a^2 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(-32 a^3 A b+8 a A b^3+16 a^4 B+8 a^2 b^2 B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\right.$$

$$\left(2 \left(16 a^4 A-19 a^2 A b^2+9 A b^4-9 a^3 b B+3 a b^3 B\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-9 a^2 A b^2+3 A b^4+5 a^3 b B+a b^3 B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(-\frac{\left(-9 a^2 A b+3 A b^3+5 a^3 B+a b^2 B\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2}+\frac{-A b \text{Sin}[c+d x]+a B \text{Sin}[c+d x]}{2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+\frac{-7 a^2 A b \text{Sin}[c+d x]+A b^3 \text{Sin}[c+d x]+3 a^3 B \text{Sin}[c+d x]+3 a b^2 B \text{Sin}[c+d x]}{4 a \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{(a+b \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{\left(5 a^2 A b+A b^3-a^3 B-5 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a b \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(3 a^2 A b+3 A b^3+a^3 B-7 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 b^2 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(3 a^4 A b+10 a^2 A b^3-A b^5+a^5 B-10 a^3 b^2 B-3 a b^4 B\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a (a-b)^2 b^2 (a+b)^3 d}-$$

$$\frac{(A b-a B) \text{Sin}[c+d x]}{2 \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}-\frac{\left(5 a^2 A b+A b^3-a^3 B-5 a b^2 B\right) \text{Sin}[c+d x]}{4 a \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16\,a\,(a-b)^2\,(a+b)^2\,d}\left(-\left(2\left(16\,a^3\,A+8\,a\,A\,b^2-24\,a^2\,b\,B\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right](b+a\,\mathrm{Sec}[c+d\,x])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(-9\,a^2\,A\,b+3\,A\,b^3+5\,a^3\,B+a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(5\,a^2\,A\,b+A\,b^3-a^3\,B-5\,a\,b^2\,B\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{\left(-5\,a^2\,A\,b-A\,b^3+a^3\,B+5\,a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{4\,a\,b\left(a^2-b^2\right)^2}+\frac{a\,A\,b\,\mathrm{Sin}[c+d\,x]-a^2\,B\,\mathrm{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{3\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+3\,A\,b^3\,\mathrm{Sin}[c+d\,x]+a^3\,B\,\mathrm{Sin}[c+d\,x]-7\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]}{4\,b\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{\left(a^2\,A\,b+5\,A\,b^3+3\,a^3\,B-9\,a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^2\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(a^3\,A\,b-7\,a\,A\,b^3+3\,a^4\,B-5\,a^2\,b^2\,B+8\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^3\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(a^4\,A\,b-10\,a^2\,A\,b^3-3\,A\,b^5+3\,a^5\,B-6\,a^3\,b^2\,B+15\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^3\,(a+b)^3\,d}+$$

$$\frac{a\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{\left(a^2\,A\,b+5\,A\,b^3+3\,a^3\,B-9\,a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{4\,b\left(a^2-b^2\right)^2 d\,(a+b\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{16\,(a-b)^2\,b\,(a+b)^2\,d}\left(-\left(2\left(24\,a\,A\,b^2-8\,a^2\,b\,B-16\,b^3\,B\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right](b+a\,\mathrm{Sec}[c+d\,x])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(-5\,a^2\,A\,b-A\,b^3+a^3\,B+5\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\right.\right.$$

$$\left.\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/$$

$$\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(a^2\,A\,b+5\,A\,b^3+3\,a^3\,B-9\,a\,b^2\,B\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{\left(a^2\,A\,b+5\,A\,b^3+3\,a^3\,B-9\,a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2}+\frac{-a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+a^3\,B\,\mathrm{Sin}[c+d\,x]}{2\,b^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{a^3\,A\,b\,\mathrm{Sin}[c+d\,x]-7\,a\,A\,b^3\,\mathrm{Sin}[c+d\,x]-5\,a^4\,B\,\mathrm{Sin}[c+d\,x]+11\,a^2\,b^2\,B\,\mathrm{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,8,\,0\right\}$$

$$-\frac{\left(3\,a^3\,A\,b-9\,a\,A\,b^3-15\,a^4\,B+29\,a^2\,b^2\,B-8\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^3\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(3\,a^4\,A\,b-5\,a^2\,A\,b^3+8\,A\,b^5-15\,a^5\,B+33\,a^3\,b^2\,B-24\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^4\left(a^2-b^2\right)^2\,d}-$$

$$\frac{a\left(3\,a^4\,A\,b-6\,a^2\,A\,b^3+15\,A\,b^5-15\,a^5\,B+38\,a^3\,b^2\,B-35\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^4\,(a+b)^3\,d}+$$

$$\frac{a\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{a\left(a^2\,A\,b-7\,A\,b^3-5\,a^3\,B+11\,a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{16\,(a-b)^2\,b^2\,(a+b)^2\,d}\left(-\left(2\left(8a^2Ab^2+16Ab^4+8a^3bB-32ab^3B\right)\mathrm{Cos}[c+dx]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right](b+a\,\mathrm{Sec}[c+dx])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+dx]^2}\,\mathrm{Sin}[c+dx]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\right)+$$

$$\left(2\left(-a^3Ab-5aAb^3+5a^4B-7a^2b^2B+8b^4B\right)\mathrm{Cos}[c+dx]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]+\right.\right.$$

$$\left.\left.\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\right)(b+a\,\mathrm{Sec}[c+dx])\sqrt{1-\mathrm{Sec}[c+dx]^2}\,\mathrm{Sin}[c+dx]\right)\Big/$$

$$\left(a\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+dx])\left(1-\mathrm{Cos}[c+dx]^2\right)\sqrt{\mathrm{Sec}[c+dx]}\left(2-\mathrm{Sec}[c+dx]^2\right)}$$

$$\left(-3a^3Ab+9aAb^3+15a^4B-29a^2b^2B+8b^4B\right)\mathrm{Cos}[2\,(c+dx)]\,(b+a\,\mathrm{Sec}[c+dx])$$

$$\left(-4ab+4ab\,\mathrm{Sec}[c+dx]^2-4ab\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}+\right.$$

$$2\,(2a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}+$$

$$4a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}-$$

$$\left.2b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+dx]}\right],-1\right]\sqrt{\mathrm{Sec}[c+dx]}\sqrt{1-\mathrm{Sec}[c+dx]^2}\right)\mathrm{Sin}[c+dx]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+dx]}\left(-\frac{a\left(-3a^2Ab+9Ab^3+7a^3B-13ab^2B\right)\mathrm{Sin}[c+dx]}{4b^3\left(a^2-b^2\right)^2}+\frac{a^3Ab\,\mathrm{Sin}[c+dx]-a^4B\,\mathrm{Sin}[c+dx]}{2b^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}+\right.$$

$$\left.\frac{-5a^4Ab\,\mathrm{Sin}[c+dx]+11a^2Ab^3\,\mathrm{Sin}[c+dx]+9a^5B\,\mathrm{Sin}[c+dx]-15a^3b^2B\,\mathrm{Sin}[c+dx]}{4b^3\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+dx]}{(a+b\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]^{7/2}},\,x,\,9,\,0\right\}$$

$$\frac{\left(15a^4Ab-29a^2Ab^3+8Ab^5-35a^5B+65a^3b^2B-24ab^4B\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{4b^4\left(a^2-b^2\right)^2d}-$$

$$\frac{1}{12b^5\left(a^2-b^2\right)^2d}\left(45a^5Ab-99a^3Ab^3+72aAb^5-105a^6B+223a^4b^2B-128a^2b^4B-8b^6B\right)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}+$$

$$\frac{a^2\left(15a^4Ab-38a^2Ab^3+35Ab^5-35a^5B+86a^3b^2B-63ab^4B\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\mathrm{Sec}[c+dx]}}{4(a-b)^2b^5(a+b)^3d}+$$

$$\frac{a\,(Ab-aB)\,\mathrm{Sin}[c+dx]}{2b\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{5/2}}+\frac{a\left(3a^2Ab-9Ab^3-7a^3B+13ab^2B\right)\mathrm{Sin}[c+dx]}{4b^2\left(a^2-b^2\right)^2d\,(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{3/2}}-$$

$$\frac{\left(15a^3Ab-33aAb^3-35a^4B+61a^2b^2B-8b^4B\right)\mathrm{Sin}[c+dx]}{12b^3\left(a^2-b^2\right)^2d\sqrt{\mathrm{Sec}[c+dx]}}$$

$$-\frac{1}{48\,(a-b)^2\,b^3\,(a+b)^2\,d}\left(-\left(2\left(-24\,a^3\,A\,b^2+96\,a\,A\,b^4+56\,a^4\,b\,B-112\,a^2\,b^3\,B-16\,b^5\,B\right)\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right.\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(-15\,a^4\,A\,b+21\,a^2\,A\,b^3-24\,A\,b^5+35\,a^5\,B-73\,a^3\,b^2\,B+56\,a\,b^4\,B\right)\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\right.\right.$$

$$\left.\left.\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}$$

$$\left(-45\,a^4\,A\,b+87\,a^2\,A\,b^3-24\,A\,b^5+105\,a^5\,B-195\,a^3\,b^2\,B+72\,a\,b^4\,B\right)\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\Bigg)+\frac{1}{d}$$

$$\sqrt{\text{Sec}[c+d\,x]}\left(\frac{a^2\left(-7\,a^2\,A\,b+13\,A\,b^3+11\,a^3\,B-17\,a\,b^2\,B\right)\text{Sin}[c+d\,x]}{4\,b^4\left(a^2-b^2\right)^2}+\frac{-a^4\,A\,b\,\text{Sin}[c+d\,x]+a^5\,B\,\text{Sin}[c+d\,x]}{2\,b^4\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{9\,a^5\,A\,b\,\text{Sin}[c+d\,x]-15\,a^3\,A\,b^3\,\text{Sin}[c+d\,x]-13\,a^6\,B\,\text{Sin}[c+d\,x]+19\,a^4\,b^2\,B\,\text{Sin}[c+d\,x]}{4\,b^4\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}+$$

$$\left.\frac{B\,\text{Sin}[2\,(c+d\,x)]}{3\,b^3}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{1}{105\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+19\,a^2\,A\,b+2\,a\,A\,b^2+8\,A\,b^3+63\,a^3\,B+49\,a^2\,b\,B-14\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\left(25\,a^2\,A-4\,A\,b^2+7\,a\,b\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a^2\,d}+$$

$$\frac{2\,(A\,b+7\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^3\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{2\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{105\,a^3}+\frac{2\,\mathrm{Sec}[c+d\,x]^2\,(A\,b\,\mathrm{Sin}[c+d\,x]+7\,a\,B\,\mathrm{Sin}[c+d\,x])}{35\,a}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}[c+d\,x]\left(25\,a^2\,A\,\mathrm{Sin}[c+d\,x]-4\,A\,b^2\,\mathrm{Sin}[c+d\,x]+7\,a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)}{105\,a^2}+\frac{2}{7}\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\right)+$$

$$\left(2\left(-\frac{19\,A\,b}{105\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,A\,b^3}{105\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{3\,a\,B}{5\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,b^2\,B}{15\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\,a\,A\sqrt{\mathrm{Sec}[c+d\,x]}}{21\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{17\,A\,b^2\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^4\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{2\,b\,B\sqrt{\mathrm{Sec}[c+d\,x]}}{15\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,b^3\,B\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{19\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\frac{3\,b\,B\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^3\,B\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left(-2\,(a+b)\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\left(8\,A\,b^2-2\,a\,b\,(3\,A+7\,B)+a^2\,(25\,A+63\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(105\,a^3\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(\frac{1}{105\,a^3\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\left(-2\,(a+b)\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,\Big(8\,A\,b^2-2\,a\,b\,(3\,A+7\,B)+$$

$$a^2\,(25\,A+63\,B)\Big)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;\frac{-a+b}{a+b}\right]-$$

$$\Big(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\Big)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{105\,a^3\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(-2\,(a+b)\,\Big(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\Big)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,\Big(8\,A\,b^2-2\,a\,b\,(3\,A+7\,B)+a^2\,(25\,A+63\,B)\Big)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;\frac{-a+b}{a+b}\right]-$$

$$\Big(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\Big)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{105\,a^3\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}$$

$$\Bigg(-\frac{1}{2}\,\Big(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\Big)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,(a+b)\,\Big(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\Big)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}} a (a+b) \left(8 A b^2-2 a b (3 A+7 B)+a^2 (25 A+63 B)\right) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}} (a+b) \left(19 a^2 A b+8 A b^3+63 a^3 B-14 a b^2 B\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}} a (a+b) \left(8 A b^2-2 a b (3 A+7 B)+a^2 (25 A+63 B)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right)+$$

$$b \left(19 a^2 A b+8 A b^3+63 a^3 B-14 a b^2 B\right) \text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right]+$$

$$\left(19 a^2 A b+8 A b^3+63 a^3 B-14 a b^2 B\right) (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right]-$$

$$\left(19 a^2 A b+8 A b^3+63 a^3 B-14 a b^2 B\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2+$$

$$\frac{a (a+b) \left(8 A b^2-2 a b (3 A+7 B)+a^2 (25 A+63 B)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}-$$

$$\frac{1}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}} (a+b) \left(19 a^2 A b+8 A b^3+63 a^3 B-14 a b^2 B\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\left.\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{105\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\left(8\,A\,b^2-2\,a\,b\,(3\,A+7\,B)+a^2\,(25\,A+63\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

$$\left.\left(-\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{7/2},\,x,\,7,\,0\right\}$$

$$-\frac{1}{15\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,(a+b)\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{1}{15\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\left(9\,a^2\,A+7\,a\,A\,b-2\,A\,b^2+5\,a^2\,B+5\,a\,b\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{2\,(A\,b+5\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{15\,a^2\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Sin}[c+d\,x]}{15\,a^2}+\frac{2\,\mathrm{Sec}[c+d\,x]\,\left(A\,b\,\mathrm{Sin}[c+d\,x]+5\,a\,B\,\mathrm{Sin}[c+d\,x]\right)}{15\,a}+\frac{2}{5}\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)}{d}+$$

$$\left(2\left(-\frac{3\,a\,A}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,b^2}{15\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{b\,B}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{2\,A\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\frac{3\,A\,b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\left(-2\,(a+b)\,\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,(9\,a\,A-2\,A\,b+5\,a\,B)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(\frac{1}{15\,a^2\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\left(-2\,(a+b)\,\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,(9\,a\,A-2\,A\,b+5\,a\,B)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{15 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2(a+b)\left(9 a^2 A-2 A b^2+5 a b B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a(a+b)(9 a A-2 A b+5 a B)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left(9 a^2 A-2 A b^2+5 a b B\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{15 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\left(-\frac{1}{2}\left(9 a^2 A-2 A b^2+5 a b B\right) \operatorname{Cos}[c+d x]\right.$$

$$(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}(a+b)\left(9 a^2 A-2 A b^2+5 a b B\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}$$

$$a(a+b)(9 a A-2 A b+5 a B) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}(a+b)\left(9 a^2 A-2 A b^2+5 a b B\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\right.$$

$$\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\Bigg)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}a\,(a+b)\,(9\,a\,A-2\,A\,b+5\,a\,B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$b\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,(a+b)\,(9\,a\,A-2\,A\,b+5\,a\,B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\frac{(a+b)\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\Bigg)+$$

$$\frac{1}{15\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}}$$

$$\Bigg(-2\,(a+b)\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,(9\,a\,A-2\,A\,b+5\,a\,B)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)$$

$$\left(-\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2},\,x,\,6,\,0\right\}$$

$$-\frac{1}{3\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a\,A+A\,b+3\,a\,B+3\,b\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,(A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,d}$$

$$\left(\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left((a+b)\right.\right.$$

$$\left(-(A\,b+3\,a\,B)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(A+3\,B)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left(\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,\text{Sec}[c+d\,x]\,-$$

$$\left.\left.(A\,b+3\,a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(3\,a\,d\,\sqrt{\frac{\text{Cos}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{\text{Sec}[c+d\,x]}{1+\text{Sec}[c+d\,x]}}\right)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,(A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]}{3\,a}+\frac{2}{3}\,A\,\text{Tan}[c+d\,x]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]},\,x,\,8,\,0\right\}$$

$$\frac{(a+b)\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a\,A-A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(2\,A\,b+a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\Bigg(-a B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+a B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2 a B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2 a B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b) B \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2(A b+a(-A+B)) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(d\sqrt{\frac{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b \operatorname{Cos}[c+d x]}\,(A+B \operatorname{Cos}[c+d x])}{\sqrt{\operatorname{Sec}[c+d x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{4\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,(a+b)\,(4\,A\,b+a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;-$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,(4\,a\,A-a\,B+2\,b\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+\;\frac{1}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(4\,a\,A\,b-a^2\,B+4\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{B\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{(4\,A\,b+a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{B\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[2\,(c+d\,x)]}{4\,d}\;+$$

$$\frac{1}{4\,b\,d\,\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\;\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-8\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$2\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-8\,a\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+2\,a^2\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;-$$

$$8\,b^2\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-8\,a\,A\,b\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,a^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-8\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,(4\,A\,b+a\,B)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-2\,b\,(4\,a\,A-a\,B+2\,b\,B)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,(A+B\,\text{Cos}[c+d\,x])}{\text{Sec}[c+d\,x]^{3/2}},\,x,\,9,\,0\right\}$$

$$\frac{1}{24\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(6\,a\,A\,b-3\,a^2\,B+16\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{12\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(6\,a\,A\,b-12\,A\,b^2+a^2\,B-14\,a\,b\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}-\frac{1}{4\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(2\,a^2\,A\,b-8\,A\,b^3-a^3\,B-4\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{(6\,A\,b+a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(6\,a\,A\,b-3\,a^2\,B+16\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{24\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,B\,\mathrm{Sin}[c+d\,x]+\frac{(6\,A\,b+a\,B)\,\mathrm{Sin}[2\,(c+d\,x)]}{24\,b}+\frac{1}{12}\,B\,\mathrm{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\Bigg(-6\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-6\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$3\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+12\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$6\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+32\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+6\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-6\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$3\,a^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$12\,a^2\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+48\,A\,b^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$6\,a^3\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+24\,a\,b^2\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$12\,a^2\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+48\,A\,b^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$6 a^3 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 24 a b^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)\left(-6 a A b+3 a^2 B-16 b^2 B\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2 b\left(-6 a A b+12 A b^2-a^2 B+14 a b B\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right) \Big/$$

$$\left(24 b^2 d \sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^{3/2}(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{11/2}, x, 9, 0\right\}$$

$$-\frac{1}{315 a^3 d \sqrt{a+b \text{Cos}[c+d x]}} 2(a+b)\left(147 a^4 A+33 a^2 A b^2+8 A b^4+246 a^3 b B-18 a b^3 B\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} + \frac{1}{315 a^2 d \sqrt{a+b \text{Cos}[c+d x]}}$$

$$2\left(147 a^4 A+186 a^3 A b+33 a^2 A b^2+2 a A b^3+8 A b^4+75 a^4 B+246 a^3 b B+153 a^2 b^2 B-18 a b^3 B\right) \sqrt{\text{Cos}[c+d x]}$$

$$\sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} +$$

$$\frac{2\left(88 a^2 A b-4 A b^3+75 a^3 B+9 a b^2 B\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{3/2} \text{Sin}[c+d x]}{315 a^2 d} +$$

$$\frac{2\left(49 a^2 A+3 A b^2+72 a b B\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{5/2} \text{Sin}[c+d x]}{315 a d} +$$

$$\frac{2(10 A b+9 a B) \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{7/2} \text{Sin}[c+d x]}{63 d} + \frac{2 a A \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{9/2} \text{Sin}[c+d x]}{9 d} +$$

$$\frac{2\left(147 a^4 A+33 a^2 A b^2+8 A b^4+246 a^3 b B-18 a b^3 B\right) \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{315 a^3 d}$$

$$\frac{1}{315\,a^3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\left(8\,A\,b^3-6\,a\,b^2\,(A+3\,B)+3\,a^3\,(49\,A+25\,B)+3\,a^2\,b\,(13\,A+57\,B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B\right)\text{Sin}[c+d\,x]}{315\,a^3}+\right.$$

$$\frac{2}{63}\,\text{Sec}[c+d\,x]^3\,(10\,A\,b\,\text{Sin}[c+d\,x]+9\,a\,B\,\text{Sin}[c+d\,x])+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+72\,a\,b\,B\,\text{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\left(88\,a^2\,A\,b\,\text{Sin}[c+d\,x]-4\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]+9\,a\,b^2\,B\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+$$

$$\left.\frac{2}{9}\,a\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{105\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+82\,a^2\,A\,b+51\,a\,A\,b^2-6\,A\,b^3+63\,a^3\,B+84\,a^2\,b\,B+21\,a\,b^2\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(25\,a^2\,A+3\,A\,b^2+42\,a\,b\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a\,d}+$$

$$\frac{2\,(8\,A\,b+7\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^2\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(-\frac{2\,\left(-82\,a^2\,A\,b+6\,A\,b^3-63\,a^3\,B-21\,a\,b^2\,B\right)\,\text{Sin}[c+d\,x]}{105\,a^2}+\frac{2}{35}\,\text{Sec}[c+d\,x]^2\,(8\,A\,b\,\text{Sin}[c+d\,x]+7\,a\,B\,\text{Sin}[c+d\,x])+\right.$$

$$\left.\frac{2\,\text{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+42\,a\,b\,B\,\text{Sin}[c+d\,x]\right)}{105\,a}+\frac{2}{7}\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\right)+$$

$$\left(2\,\left(-\frac{82\,a\,A\,b}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,b^3}{35\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{3\,a^2\,B}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{b^2\,B}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{5\,a^2\,A\,\sqrt{\text{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{31\,A\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b^4\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{a\,b\,B\,\sqrt{\text{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b^3\,B\,\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{82\,A\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b^4\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\left.\left.\frac{3\,a\,b\,B\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b^3\,B\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\right.\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(-2\,(a+b)\,\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 A b^2+3 a b (19 A+7 B)+a^2 (25 A+63 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left(82 a^2 A b-6 A b^3+63 a^3 B+21 a b^2 B\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(105 a^2 d\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\Bigg(\frac{1}{105 a^2 (a+b \text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\,\text{Sin}[c+d x]\Bigg(-2 (a+b)\left(82 a^2 A b-6 A b^3+63 a^3 B+21 a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 A b^2+3 a b (19 A+7 B)+\right.$$

$$\left.a^2 (25 A+63 B)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left(82 a^2 A b-6 A b^3+63 a^3 B+21 a b^2 B\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)-$$

$$\frac{1}{105 a^2\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(-2 (a+b)\left(82 a^2 A b-6 A b^3+63 a^3 B+21 a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 A b^2+3 a b (19 A+7 B)+a^2 (25 A+63 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left(82 a^2 A b-6 A b^3+63 a^3 B+21 a b^2 B\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+$$

$$\frac{1}{105\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(-\frac{1}{2}\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,(a+b)\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,a\,(a+b)\left(-6\,A\,b^2+3\,a\,b\,(19\,A+7\,B)+a^2\,(25\,A+63\,B)\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,(a+b)\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,a\,(a+b)\left(-6\,A\,b^2+3\,a\,b\,(19\,A+7\,B)+a^2\,(25\,A+63\,B)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$b\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,(a+b)\left(-6\,A\,b^2+3\,a\,b\,(19\,A+7\,B)+a^2\,(25\,A+63\,B)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\frac{1}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,(a+b)\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\left(-6\,A\,b^2+3\,a\,b\,(19\,A+7\,B)+a^2\,(25\,A+63\,B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{7/2},\,x,\,7,\,0\right\}$$

$$-\frac{1}{15\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(9\,a^2\,A+12\,a\,A\,b+3\,A\,b^2+5\,a^2\,B+20\,a\,b\,B+15\,b^2\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,(6\,A\,b+5\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,a\,d}$$

$$\frac{1}{15\,a\,d\,\sqrt{\frac{\text{Cos}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{\text{Sec}[c+d\,x]}{1+\text{Sec}[c+d\,x]}}}\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(-(a+b)\,\left(\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.\right.$$

$$\left.a\,(3\,b\,(A+5\,B)+a\,(9\,A+5\,B))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left(\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,\text{Sec}[c+d\,x]-$$

$$\left.\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+$$

$$\frac{1}{d}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B\right)\,\text{Sin}[c+d\,x]}{15\,a}+\right.$$

$$\left.\frac{2}{15}\,\text{Sec}[c+d\,x]\,(6\,A\,b\,\text{Sin}[c+d\,x]+5\,a\,B\,\text{Sin}[c+d\,x])+\frac{2}{5}\,a\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2},\,x,\,8,\,0\right\}$$

$$-\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,(4\,A\,b+3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(a^2\,A+4\,a\,A\,b+3\,A\,b^2+3\,a^2\,B+6\,a\,b\,B-3\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{4\,b^2\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,+$$

$$\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,(4\,A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2}{3}\,(4\,A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]+\frac{2}{3}\,a\,A\,\text{Tan}[c+d\,x]\right)}{d}\,+$$

$$\left(2\left(-\frac{4\,a\,A\,b}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{a^2\,B}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{b^2\,B}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{a^2\,A\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{A\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\left.\frac{a\,b\,B\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{4\,A\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{a\,b\,B\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)$$

$$\left(12\,b^2\,B\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$2\,(a+b)\,(4\,A\,b+3\,a\,B)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-2\,\left(3\,b^2\,(A-B)+a^2\,(A+3\,B)+a\,(4\,A\,b+6\,b\,B)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$12\,b^2\,B\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-8\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\Bigg(-\Bigg(2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg(12\,b^2\,B\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]+2\,(a+b)\,(4\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-2\left(3\,b^2\,(A-B)+a^2\,(A+3\,B)+a\,(4\,A\,b+6\,b\,B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$12\,b^2\,B\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-8\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)\Bigg)\Bigg/$$

$$\left(3\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^2\right)+$$

$$\left(b\,\mathrm{Sin}[c+d\,x]\left(12\,b^2\,B\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.\right.\right.$$

$$\left.\frac{-a+b}{a+b}\right]+2\,(a+b)\,(4\,A\,b+3\,a\,B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-2\left(3\,b^2\,(A-B)+a^2\,(A+3\,B)+a\,(4\,A\,b+6\,b\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$12\,b^2\,B\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-8\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-6\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$\left.\left.4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\right)\right)\Bigg/$$

$$\left(3\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\left(-1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\right)-$$

$$\left(\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\left(12\,b^2\,B\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\right.\right.\right.$$

$$-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\Big]+2\,(a+b)\,(4\,A\,b+3\,a\,B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-2\left(3\,b^2\,(A-B)+a^2\,(A+3\,B)+a\,(4\,A\,b+6\,b\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$12\,b^2\,B\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-8 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3-6 a b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3-4 a A b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$4 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-3 a^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+3 a b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5\Bigg)\Bigg)\Bigg/$$

$$\left(\sqrt{a+b \text{Cos}[c+d x]}\left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)+$$

$$\Bigg(2\Bigg(2 a A b \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2+2 A b^2 \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2+\frac{3}{2} a^2 B \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2+\frac{3}{2} a b B \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{6 b^2 B\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}+$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}(a+b)(4 A b+3 a B)\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}\left(3 b^2(A-B)+a^2(A+3 B)+a(4 A b+6 b B)\right)\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+$$

$$\frac{6 b^2 B\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}+$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}(a+b)(4 A b+3 a B)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}$$

$$\left(3 b^2 (A-B)+a^2 (A+3 B)+a (4 A b+6 b B)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)+2(a+b)(4 A b+3 a B)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-2\left(3 b^2 (A-B)+a^2 (A+3 B)+a (4 A b+6 b B)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$12 b^2 B\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-12 A b^2\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-$$

$$9 a b B\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}6 b^2 B\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticPi}\Big[$$

$$-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\Big]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}6 b^2 B\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\ \text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-$$

$$10 a A b\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4+10 A b^2\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$\frac{15}{2}a^2 B\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4+\frac{15}{2}a b B\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$\frac{\left(3 b^2 (A-B)+a^2 (A+3 B)+a (4 A b+6 b B)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}} -$$

$$\frac{6 b^2 B \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}} -$$

$$\frac{6 b^2 B \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}} +$$

$$\left.\left.\frac{(a+b) (4 A b+3 a B) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \sqrt{1-\frac{(-a+b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}}\right)\right) \Big/$$

$$\left(3 \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2} \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]} \left(-1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)\right) -$$

$$\left(\left(12 b^2 B \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] +\right.\right.$$

$$2 (a+b) (4 A b+3 a B) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 - 2 \left(3 b^2 (A-B)+a^2 (A+3 B)+a (4 A b+6 b B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 +$$

$$4 a A b \text{Tan}\left[\frac{1}{2} (c+d x)\right] + 4 A b^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right] + 3 a^2 B \text{Tan}\left[\frac{1}{2} (c+d x)\right] + 3 a b B \text{Tan}\left[\frac{1}{2} (c+d x)\right] +$$

$$12 b^2 B \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - 8 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3 - 6 a b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3 -$$

$$4 a A b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 4 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 3 a^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 3 a b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}(c+d x)\right] \text{Sec}[c+d x] \text{Sin}\left[\frac{1}{2}(c+d x)\right] + \text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x] \text{Tan}[c+d x]\right)\Bigg)\Big/$$

$$\left(3\sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]\right)^{3/2} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^{3/2} (A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2}, x, 8, 0\right\}$$

$$-\frac{1}{d\sqrt{a+b \text{Cos}[c+d x]}} (a+b)(2 a A - b B) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} +$$

$$\frac{1}{d\sqrt{a+b \text{Cos}[c+d x]}} 2\left(a^2 A + 2 a A b - A b^2 + a^2 B - 2 a b B\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} +$$

$$\frac{1}{d\sqrt{a+b \text{Cos}[c+d x]}} 2 b (2 A b + 3 a B) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} +$$

$$\frac{2 a A \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{d} - \frac{(2 a A - b B) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{2\,a\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}+$$

$$\frac{1}{d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\Bigg(-2\,a^2\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+a\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-$$

$$2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+2\,a^2\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-2\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-a\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-4\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-6\,a\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$4\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-6\,a\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\,(2\,a\,A-b\,B)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\left(-A\,b^2+2\,a\,b\,(A-B)+a^2\,(A+B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,(A+B\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,(a+b)\,(4\,A\,b+5\,a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(4\,a^2\,A-8\,a\,A\,b-4\,a^2\,B+a\,b\,B-2\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(12\,a\,A\,b+3\,a^2\,B+4\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{b\,B\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{(4\,A\,b+5\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{b\,B\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[2\,(c+d\,x)]}{4\,d}\;+$$

$$\frac{1}{4\,d\,\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\;\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+5\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+5\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-8\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$10\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-4\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+4\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-5\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$5\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,a\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-6\,a^2\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\;\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;-$$

$$8 b^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 24 a A b \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$6 a^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 8 b^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)(4 A b+5 a B) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2\left(4 a^2 (A-B)-2 b^2 B+a b(-8 A+B)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b \text{Cos}[c+d x])^{3/2}(A+B \text{Cos}[c+d x])}{\sqrt{\text{Sec}[c+d x]}}, x, 9, 0\right\}$$

$$\frac{1}{24\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(30\,a\,A\,b+3\,a^2\,B+16\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,-$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(24\,a^2\,A-6\,a\,A\,b+12\,A\,b^2-7\,a^2\,B+26\,a\,b\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\frac{1}{4\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(6\,a^2\,A\,b+8\,A\,b^3-a^3\,B+12\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\frac{b\,B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{(6\,A\,b+7\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(30\,a\,A\,b+3\,a^2\,B+16\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,b\,B\,\text{Sin}[c+d\,x]+\frac{1}{24}\,(6\,A\,b+7\,a\,B)\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b\,B\,\text{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\frac{1}{24\,b\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(30\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+30\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$3\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-60\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$6\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-32\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-30\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+30\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$3\,a^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$36\,a^2\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-48\,A\,b^3\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^3 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-72 a b^2 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$36 a^2 A b\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-48 A b^3\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^3 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-72 a b^2 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)\left(30 a A b+3 a^2 B+16 b^2 B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$2 b\left(12 A b^2+a^2(24 A-7 B)+a(-6 A b+26 b B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{3/2}(A+B\,\text{Cos}[c+d x])}{\text{Sec}[c+d x]^{3/2}},\ x,\ 10,\ 0\right\}$$

$$\frac{1}{192\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(24\,a^2\,A\,b+128\,A\,b^3-9\,a^3\,B+156\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{96\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(56\,a^2\,A\,b-208\,a\,A\,b^2+3\,a^3\,B-114\,a^2\,b\,B+36\,a\,b^2\,B-72\,b^3\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,-\,\frac{1}{32\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(8\,a^3\,A\,b-96\,a\,A\,b^3-3\,a^4\,B-24\,a^2\,b^2\,B-48\,b^4\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{b\,B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Sec}[c+d\,x]^{5/2}}\,+$$

$$\frac{(8\,A\,b+9\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\text{Sec}[c+d\,x]^{3/2}}\,+\,\frac{\left(56\,a\,A\,b+3\,a^2\,B+36\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{96\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}\,+$$

$$\frac{\left(24\,a^2\,A\,b+128\,A\,b^3-9\,a^3\,B+156\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{96}\,(8\,A\,b+9\,a\,B)\,\text{Sin}[c+d\,x]\,+\right.$$

$$\left.\frac{\left(56\,a\,A\,b+3\,a^2\,B+48\,b^2\,B\right)\text{Sin}[2\,(c+d\,x)]}{192\,b}+\frac{1}{96}\,(8\,A\,b+9\,a\,B)\,\text{Sin}[3\,(c+d\,x)]+\frac{1}{32}\,b\,B\,\text{Sin}[4\,(c+d\,x)]\right)\,+$$

$$\frac{1}{192\,b^2\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(24\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+24\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+128\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\right.$$

$$128\,A\,b^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-9\,a^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-9\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+156\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$156\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-48\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-256\,A\,b^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+18\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$312\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-24\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-128\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$128\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+9\,a^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-9\,a^3\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-156\,a^2\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$156\,a\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+48\,a^3\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-576\,a\,A\,b^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$18\,a^4\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-144\,a^2\,b^2\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$288\,b^4\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+48\,a^3\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$576\,a\,A\,b^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-18\,a^4\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$144\,a^2\,b^2\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-288\,b^4\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(-24\,a^2\,A\,b-128\,A\,b^3+9\,a^3\,B-156\,a\,b^2\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\left(2\,a^2\,b\,(28\,A-57\,B)-4\,a\,b^2\,(52\,A-9\,B)+3\,a^3\,B-72\,b^3\,B\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{13/2},\,x,\,10,\,0\right\}$$

$$-\frac{1}{3465\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{3465\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(675\,a^5\,A+3705\,a^4\,A\,b+3315\,a^3\,A\,b^2+255\,a^2\,A\,b^3+10\,a\,A\,b^4+40\,A\,b^5+\right.$$

$$\left.1617\,a^5\,B+2871\,a^4\,b\,B+3069\,a^3\,b^2\,B+1705\,a^2\,b^3\,B-110\,a\,b^4\,B\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\left(675\,a^4\,A+1025\,a^2\,A\,b^2-20\,A\,b^4+1793\,a^3\,b\,B+55\,a\,b^3\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3465\,a^2\,d}+$$

$$\frac{2\left(1145\,a^2\,A\,b+15\,A\,b^3+539\,a^3\,B+825\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{3465\,a\,d}+$$

$$\frac{2\left(81\,a^2\,A+113\,A\,b^2+209\,a\,b\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{693\,d}+$$

$$\frac{2\,a\,(14\,A\,b+11\,a\,B)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{99\,d}+$$

$$\frac{2\,a\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{11/2}\,\text{Sin}[c+d\,x]}{11\,d}+$$

$$\frac{2\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3465\,a^3\,d}$$

$$\frac{1}{3465\,a^3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\left(40\,A\,b^4-10\,a\,b^3\,(3\,A+11\,B)+15\,a^2\,b^2\,(19\,A+121\,B)+6\,a^3\,b\,(505\,A+209\,B)+3\,a^4\,(225\,A+539\,B)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B\right)\text{Sin}[c+d\,x]}{3465\,a^3}+\right.$$

$$\frac{2}{99}\,\text{Sec}[c+d\,x]^4\left(23\,a\,A\,b\,\text{Sin}[c+d\,x]+11\,a^2\,B\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2}{693}\,\text{Sec}[c+d\,x]^3\left(81\,a^2\,A\,\text{Sin}[c+d\,x]+113\,A\,b^2\,\text{Sin}[c+d\,x]+209\,a\,b\,B\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\left(1145\,a^2\,A\,b\,\text{Sin}[c+d\,x]+15\,A\,b^3\,\text{Sin}[c+d\,x]+539\,a^3\,B\,\text{Sin}[c+d\,x]+825\,a\,b^2\,B\,\text{Sin}[c+d\,x]\right)}{3465\,a}+$$

$$\frac{1}{3465\,a^2}2\,\text{Sec}[c+d\,x]\left(675\,a^4\,A\,\text{Sin}[c+d\,x]+1025\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-20\,A\,b^4\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\left.1793\,a^3\,b\,B\,\text{Sin}[c+d\,x]+55\,a\,b^3\,B\,\text{Sin}[c+d\,x]\right)+\frac{2}{11}\,a^2\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,(A+B\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{11/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+\;\frac{1}{315\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(147\,a^4\,A+261\,a^3\,A\,b+279\,a^2\,A\,b^2+155\,a\,A\,b^3-10\,A\,b^4+75\,a^4\,B+435\,a^3\,b\,B+405\,a^2\,b^2\,B+45\,a\,b^3\,B\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{2\,\left(163\,a^2\,A\,b+5\,A\,b^3+75\,a^3\,B+135\,a\,b^2\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a\,d}\;+$$

$$\frac{2\,\left(49\,a^2\,A+75\,A\,b^2+135\,a\,b\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,d}\;+$$

$$\frac{2\,a\,(4\,A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{21\,d}\;+\;\frac{2\,a\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}\;+$$

$$\frac{2\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^2\,d}$$

$$\frac{1}{315\,a^2\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,-$$

$$(a+b)\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+\;a\,(a+b)$$

$$\left(-10\,A\,b^3+15\,a\,b^2\,(11\,A+3\,B)+3\,a^3\,(49\,A+25\,B)+6\,a^2\,b\,(19\,A+60\,B)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\;+$$

$$\frac{1}{d}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\Bigg(\frac{2\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B\right)\,\text{Sin}[c+d\,x]}{315\,a^2}\;+$$

$$\frac{2}{63}\,\text{Sec}[c+d\,x]^3\,\left(19\,a\,A\,b\,\text{Sin}[c+d\,x]+9\,a^2\,B\,\text{Sin}[c+d\,x]\right)\;+$$

$$\frac{2}{315}\,\text{Sec}[c+d\,x]^2\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+75\,A\,b^2\,\text{Sin}[c+d\,x]+135\,a\,b\,B\,\text{Sin}[c+d\,x]\right)\;+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(163\,a^2\,A\,b\,\text{Sin}[c+d\,x]+5\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]+135\,a\,b^2\,B\,\text{Sin}[c+d\,x]\right)}{315\,a}\;+$$

$$\frac{2}{9}\,a^2\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,(a+b)\,\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$

$$\frac{1}{105\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+145\,a^2\,A\,b+135\,a\,A\,b^2+15\,A\,b^3+63\,a^3\,B+119\,a^2\,b\,B+161\,a\,b^2\,B+105\,b^3\,B\right)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(25\,a^2\,A+45\,A\,b^2+77\,a\,b\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{2\,a\,(10\,A\,b+7\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,d}+\frac{2\,a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{2\,\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B\right)\,\mathrm{Sin}[c+d\,x]}{105\,a}+\frac{2}{35}\,\mathrm{Sec}[c+d\,x]^2\,\left(15\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+7\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\right.$$

$$\left.\frac{2}{105}\,\mathrm{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\mathrm{Sin}[c+d\,x]+45\,A\,b^2\,\mathrm{Sin}[c+d\,x]+77\,a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{7}\,a^2\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\right)+$$

$$\left(2\,\left(-\frac{29\,a^2\,A\,b}{21\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{A\,b^3}{7\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{3\,a^3\,B}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{23\,a\,b^2\,B}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\,a^3\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{7\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{8\,a^2\,b\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,b^3\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{29\,a\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{7\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\left.\frac{3\,a^2\,b\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{23\,b^3\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\right.$$

$$\left(-2(a+b)\left(145a^2Ab+15Ab^3+63a^3B+161ab^2B\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a(a+b)\left(15b^2(A+7B)+8ab(15A+7B)+a^2(25A+63B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(145a^2Ab+15Ab^3+63a^3B+161ab^2B\right)\text{Cos}[c+dx](a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)\Bigg)\Bigg/$$

$$\Bigg(105ad\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}$$

$$\Bigg(\frac{1}{105a(a+b\,\text{Cos}[c+dx])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}b\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\,\text{Sin}[c+dx]$$

$$\left(-2(a+b)\left(145a^2Ab+15Ab^3+63a^3B+161ab^2B\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a(a+b)\left(15b^2(A+7B)+8ab(15A+7B)+a^2(25A+63B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(145a^2Ab+15Ab^3+63a^3B+161ab^2B\right)\text{Cos}[c+dx](a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)-$$

$$\frac{1}{105a\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]$$

$$\left(-2(a+b)\left(145a^2Ab+15Ab^3+63a^3B+161ab^2B\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(15 b^2 (A+7 B)+8 a b (15 A+7 B)+a^2 (25 A+63 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{105 a\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}2\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}$$

$$\left(-\frac{1}{2}\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\text{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\right.$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}(a+b)\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}a (a+b)\left(15 b^2 (A+7 B)+8 a b (15 A+7 B)+a^2 (25 A+63 B)\right)\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}(a+b)\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x])\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}a (a+b)\left(15 b^2 (A+7 B)+8 a b (15 A+7 B)+a^2 (25 A+63 B)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)+$$

$$b\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Sin}[c+d x]\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Sin}[c+d x]\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{a(a+b)\left(15 b^2(A+7B)+8 a b(15 A+7 B)+a^2(25 A+63 B)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\frac{1}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}(a+b)\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{105 a\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}}$$

$$\left(-2(a+b)\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a(a+b)\left(15 b^2(A+7B)+8 a b(15 A+7 B)+a^2(25 A+63 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(145 a^2 A b+15 A b^3+63 a^3 B+161 a b^2 B\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}(c+d x)\right]\text{Sec}[c+d x]\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]\,\text{Tan}[c+d x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d x])^{5/2}(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(14\,a\,A\,b+6\,a^2\,B-3\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(a^3\,A+7\,a^2\,A\,b+9\,a\,A\,b^2-3\,A\,b^3+3\,a^3\,B+9\,a^2\,b\,B-9\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,b^2\,(2\,A\,b+5\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,a\,(2\,A\,b+a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}+\frac{2\,a\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}-$$

$$\frac{\left(14\,a\,A\,b+6\,a^2\,B-3\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-14\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-14\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-6\,a^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$6\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+3\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+3\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+28\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$12\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-6\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+14\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-14\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$6\,a^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-6\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-3\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+3\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$12\,A\,b^3\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$12\,A\,b^3\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(14\,a\,A\,b+6\,a^2\,B-3\,b^2\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\left(-3\,A\,b^3+9\,a\,b^2\,(A-B)+a^3\,(A+3\,B)+a^2\,b\,(7\,A+9\,B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2}{3}\,a\,(7\,A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]+\frac{2}{3}\,a^2\,A\,\text{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(8\,a^2\,A-4\,A\,b^2-9\,a\,b\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(4\,a^3\,A+12\,a^2\,A\,b-12\,a\,A\,b^2+4\,a^3\,B-12\,a^2\,b\,B+a\,b^2\,B-2\,b^3\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}b\left(20\,a\,A\,b+15\,a^2\,B+4\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ -\ \frac{b\,(4\,a\,A-b\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}\ +$$

$$\frac{2\,a\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{d}-\frac{\left(8\,a^2\,A-4\,A\,b^2-9\,a\,b\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}\ \left(2\,a^2\,A\,\mathrm{Sin}[c+d\,x]+\frac{1}{4}\,b^2\,B\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}\ +$$

$$\frac{1}{4\,d\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\ \Bigg(-8\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-8\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+4\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$4\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$8\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-18\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+8\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-8\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$4\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+4\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-9\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+9\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$40\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$8\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-40\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-8\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(8\,a^2\,A-4\,A\,b^2-9\,a\,b\,B\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\left(12\,a^2\,b\,(A-B)-2\,b^3\,B+a\,b^2\,(-12\,A+B)+4\,a^3\,(A+B)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]},\,x,\,9,\,0\right\}$$

$$\frac{1}{24\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(54\,a\,A\,b+33\,a^2\,B+16\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(24\,a^3\,A-72\,a^2\,A\,b+6\,a\,A\,b^2-12\,A\,b^3-24\,a^3\,B+13\,a^2\,b\,B-38\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(30\,a^2\,A\,b+8\,A\,b^3+5\,a^3\,B+20\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{b\,(2\,A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{b\,B\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(54\,a\,A\,b+33\,a^2\,B+16\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,b^2\,B\,\text{Sin}[c+d\,x]+\frac{1}{24}\,b\,(6\,A\,b+13\,a\,B)\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b^2\,B\,\text{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\frac{1}{24\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(54\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+54\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+33\,a^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$33\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-108\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$66\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-32\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-54\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+54\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$33\,a^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+33\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$180\,a^2\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-48\,A\,b^3\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$30\,a^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-120\,a\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$180\,a^2\,A\,b\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-48\,A\,b^3\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$30\,a^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-120\,a\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)\left(54\,a\,A\,b+33\,a^2\,B+16\,b^2\,B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$2\left(-12\,A\,b^3+2\,a\,b^2\,(3\,A-19\,B)+24\,a^3\,(A-B)+a^2\,(-72\,A\,b+13\,b\,B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{5/2}\,(A+B\,\text{Cos}[c+d x])}{\sqrt{\text{Sec}[c+d x]}},\ x,\ 10,\ 0\right\}$$

$$\frac{1}{192\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,-\,\frac{1}{96\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(192\,a^3\,A-104\,a^2\,A\,b+304\,a\,A\,b^2-59\,a^3\,B+322\,a^2\,b\,B-36\,a\,b^2\,B+72\,b^3\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{1}{32\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(40\,a^3\,A\,b+160\,a\,A\,b^3-5\,a^4\,B+120\,a^2\,b^2\,B+48\,b^4\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{b\,(8\,A\,b+11\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{24\,d\,\text{Sec}[c+d\,x]^{3/2}}\,+$$

$$\frac{b\,B\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Sec}[c+d\,x]^{3/2}}\,+\,\frac{\left(104\,a\,A\,b+59\,a^2\,B+36\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{96\,d\,\sqrt{\text{Sec}[c+d\,x]}}\,+$$

$$\frac{\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{96}\,b\,(8\,A\,b+17\,a\,B)\,\text{Sin}[c+d\,x]\,+\right.$$

$$\left.\frac{1}{192}\,\left(104\,a\,A\,b+59\,a^2\,B+48\,b^2\,B\right)\text{Sin}[2\,(c+d\,x)]\,+\,\frac{1}{96}\,b\,(8\,A\,b+17\,a\,B)\,\text{Sin}[3\,(c+d\,x)]\,+\,\frac{1}{32}\,b^2\,B\,\text{Sin}[4\,(c+d\,x)]\right)\,+$$

$$\frac{1}{192\,b\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(264\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+264\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+128\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\right.$$

$$128\,A\,b^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+15\,a^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+15\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+284\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$284\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-528\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-256\,A\,b^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-30\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$568\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-264\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+264\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-128\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$128\,A\,b^4\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+15\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-284\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$284\, a\, b^3\, B\, \mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5 - 240\, a^3\, A\, b\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} - 960\, a\, A\, b^3\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} +$$

$$30\, a^4\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} - 720\, a^2\, b^2\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} -$$

$$288\, b^4\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} - 240\, a^3\, A\, b\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} -$$

$$960\, a\, A\, b^3\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} + 30\, a^4\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} -$$

$$720\, a^2\, b^2\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-288\,b^4\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(264\,a^2\,A\,b+128\,A\,b^3+15\,a^3\,B+284\,a\,b^2\,B\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\,b\left(a^3\,(192\,A-59\,B)+4\,a\,b^2\,(76\,A-9\,B)+72\,b^3\,B+a^2\,(-104\,A\,b+322\,b\,B)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,(A+B\,\mathrm{Cos}[c+d\,x])}{\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,11,\,0\right\}$$

$$\frac{1}{1920\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(150\,a^3\,A\,b+2840\,a\,A\,b^3-45\,a^4\,B+1692\,a^2\,b^2\,B+1024\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{960\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(590\,a^3\,A\,b-3220\,a^2\,A\,b^2+360\,a\,A\,b^3-720\,A\,b^4+15\,a^4\,B-1146\,a^3\,b\,B+772\,a^2\,b^2\,B-2312\,a\,b^3\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}-$$

$$\frac{1}{64\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(10\,a^4\,A\,b-240\,a^2\,A\,b^3-96\,A\,b^5-3\,a^5\,B-40\,a^3\,b^2\,B-240\,a\,b^4\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{b\,(10\,A\,b+13\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{40\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{b\,B\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{\left(170\,a\,A\,b+93\,a^2\,B+64\,b^2\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{240\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\left(590\,a^2\,A\,b+360\,A\,b^3+15\,a^3\,B+772\,a\,b^2\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{960\,b\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{\left(150\,a^3\,A\,b+2840\,a\,A\,b^3-45\,a^4\,B+1692\,a^2\,b^2\,B+1024\,b^4\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{1920\,b^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{1}{960}\left(170\,a\,A\,b+93\,a^2\,B+88\,b^2\,B\right)\mathrm{Sin}[c+d\,x]+\frac{\left(590\,a^2\,A\,b+480\,A\,b^3+15\,a^3\,B+1024\,a\,b^2\,B\right)\mathrm{Sin}[2\,(c+d\,x)]}{1920\,b}+\right.$$

$$\left.\frac{1}{960}\left(170\,a\,A\,b+93\,a^2\,B+100\,b^2\,B\right)\mathrm{Sin}[3\,(c+d\,x)]+\frac{1}{320}\,b\,(10\,A\,b+21\,a\,B)\,\mathrm{Sin}[4\,(c+d\,x)]+\frac{1}{80}\,b^2\,B\,\mathrm{Sin}[5\,(c+d\,x)]\right)+$$

$$\left(-150\,a^4\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-150\,a^3\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2840\,a^2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2840\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+\right.$$

$$45\,a^5\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+45\,a^4\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-1692\,a^3\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-1692\,a^2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$1024\,a\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-1024\,b^5\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+300\,a^3\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+5680\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-$$

$$90\,a^4\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+3384\,a^2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+2048\,b^5\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+150\,a^4\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$150\,a^3\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+2840\,a^2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-2840\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-45\,a^5\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$45\,a^4\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+1692\,a^3\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-1692\,a^2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+1024\,a\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$1024\,b^5\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-300\,a^4\,A\,b\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+7200\,a^2\,A\,b^3\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2880\,A\,b^5\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+90\,a^5\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$1200\, a^3 b^2 B\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 7200\, a\, b^4 B\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$300\, a^4 A\, b\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 7200\, a^2 A\, b^3\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2880\, A\, b^5\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 90\, a^5 B\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$1200\, a^3 b^2 B\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 7200\, a\, b^4 B\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)\left(-150\, a^3 A\, b - 2840\, a\, A\, b^3 + 45\, a^4 B - 1692\, a^2 b^2 B - 1024\, b^4 B\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$2 b\left(-720 A b^4+2 a^3 b(295 A-573 B)+8 a b^3(45 A-289 B)+15 a^4 B+4 a^2 b^2(-805 A+193 B)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(1920 b^2 d\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{7/2}}{\sqrt{a+b\,\text{Cos}[c+d x]}},x,7,0\right\}$$

$$-\frac{1}{15 a^3 d\sqrt{a+b\,\text{Cos}[c+d x]}}2(a+b)\left(9 a^2 A+8 A b^2-10 a b B\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+$$

$$\frac{1}{15 a^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}2\left(9 a^2 A+2 a A b+8 A b^2+5 a^2 B-10 a b B\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}-$$

$$\frac{2(4 A b-5 a B)\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{15 a^2 d}+\frac{2 A\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{5 a d}+$$

$$\frac{2\left(9 a^2 A+8 A b^2-10 a b B\right)\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{15 a^3 d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\mathrm{Sin}[c+d\,x]}{15\,a^3}+\frac{2\,\mathrm{Sec}[c+d\,x]\left(-4\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a\,B\,\mathrm{Sin}[c+d\,x]\right)}{15\,a^2}+\frac{2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,a}\right)}{d}+$$

$$\left(2\left(-\frac{3\,A}{5\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,A\,b^2}{15\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,b\,B}{3\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{7\,A\,b\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^3\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{B\sqrt{\mathrm{Sec}[c+d\,x]}}{3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^2\,B\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\frac{3\,A\,b\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^2\,B\,\mathrm{Cos}[2\,(c+d\,x)]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\left(-2\,(a+b)\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\,a^3\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(\frac{1}{15\,a^3\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\left(-2\,(a+b)\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+\right.$$

$$\left.a^2\,(9\,A+5\,B)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2(a+b)\left(9 a^2 A+8 A b^2-10 a b B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(8 A b^2+2 a b(A-5 B)+a^2(9 A+5 B)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left(9 a^2 A+8 A b^2-10 a b B\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\left(-\frac{1}{2}\left(9 a^2 A+8 A b^2-10 a b B\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}\right.$$

$$(a+b)\left(9 a^2 A+8 A b^2-10 a b B\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}} a\left(8 A b^2+2 a b(A-5 B)+a^2(9 A+5 B)\right)$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\right.$$

$$\left.\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}(a+b)\left(9 a^2 A+8 A b^2-10 a b B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,a\,\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,B)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$b\,\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,B)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\,\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{15\,a^3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\,\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,B)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{1}{3 a^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 (a+b) (2 A b-3 a B) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]} +$$

$$\frac{1}{3 a d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 (a A-2 A b+3 a B) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]} +$$

$$\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sec}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{3 a d} - \frac{2 (2 A b-3 a B) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]}{3 a^2 d}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \left(\frac{2 (-2 A b+3 a B) \operatorname{Sin}[c+d x]}{3 a^2}+\frac{2 A \operatorname{Tan}[c+d x]}{3 a}\right)}{d} +$$

$$\left(2 \left(\frac{2 A b}{3 a \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}} - \frac{B}{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}} + \right.\right.$$

$$\frac{A \sqrt{\operatorname{Sec}[c+d x]}}{3 \sqrt{a+b \operatorname{Cos}[c+d x]}} + \frac{2 A b^2 \sqrt{\operatorname{Sec}[c+d x]}}{3 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]}} - \frac{b B \sqrt{\operatorname{Sec}[c+d x]}}{a \sqrt{a+b \operatorname{Cos}[c+d x]}} +$$

$$\left.\frac{2 A b^2 \operatorname{Cos}[2 (c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{3 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]}} - \frac{b B \operatorname{Cos}[2 (c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{a \sqrt{a+b \operatorname{Cos}[c+d x]}}\right) \sqrt{\operatorname{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\left(-2 (a+b) (-2 A b+3 a B) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] +\right.$$

$$2 a (-2 A b+a (A+3 B)) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$\left.\left.(2 A b-3 a B) \operatorname{Cos}[c+d x] (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right)\right) \Big/$$

$$\left(3 a^2 d \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2} \left(\frac{1}{3 a^2 (a+b \operatorname{Cos}[c+d x])^{3/2} \sqrt{\operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2}}\right.\right.$$

$$b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]}\ \text{Sin}[c+d x]\left(-2(a+b)(-2 A b+3 a B)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\right.$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a(-2 A b+a(A+3 B))$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.(2 A b-3 a B)\,\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)-$$

$$\frac{1}{3 a^2\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2(a+b)(-2 A b+3 a B)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a(-2 A b+a(A+3 B))\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+(2 A b-3 a B)\,\text{Cos}[c+d x]$$

$$\left.(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+\frac{1}{3 a^2\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$2\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\left(\frac{1}{2}(2 A b-3 a B)\,\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\right.$$

$$\frac{(a+b)(-2 A b+3 a B)\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

+

$$\frac{a\,(-2\,A\,b+a\,(A+3\,B))\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$-\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,(a+b)\,(-2\,A\,b+3\,a\,B)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,a\,(-2\,A\,b+a\,(A+3\,B))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-b\,(2\,A\,b-3\,a\,B)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-(2\,A\,b-3\,a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$(2\,A\,b-3\,a\,B)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,(-2\,A\,b+a\,(A+3\,B))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\,(-2\,A\,b+3\,a\,B)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\,(-2\,A\,b+3\,a\,B)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] + 2 a (-2 A b + a (A + 3 B)) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$(2 A b - 3 a B)\,\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}(c+d x)\right]\text{Sec}[c+d x]\,\text{Sin}\left[\frac{1}{2}(c+d x)\right] + \text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]\,\text{Tan}[c+d x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{3/2}}{\sqrt{a+b\,\text{Cos}[c+d x]}}, x, 5, 0\right\}$$

$$-\frac{2 A (a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{a d\sqrt{a+b\,\text{Cos}[c+d x]}} +$$

$$\frac{2 (A+B)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{d\sqrt{a+b\,\text{Cos}[c+d x]}} +$$

$$\frac{2 A\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{a d}$$

$$\frac{2 A\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{a d} -$$

$$\left(2\left(-\frac{A}{\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}} - \frac{A b\sqrt{\text{Sec}[c+d x]}}{a\sqrt{a+b\,\text{Cos}[c+d x]}} + \frac{B\sqrt{\text{Sec}[c+d x]}}{\sqrt{a+b\,\text{Cos}[c+d x]}} - \frac{A b\,\text{Cos}[2(c+d x)]\sqrt{\text{Sec}[c+d x]}}{a\sqrt{a+b\,\text{Cos}[c+d x]}}\right)\right.$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\left(2 A (a+b)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] -\right.$$

$$2\,a\,(A+B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$A\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\Bigg(-\frac{1}{a\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\,\Bigg(2\,A\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$2\,a\,(A+B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$A\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,A\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$2\,a\,(A+B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$A\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-\frac{1}{a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\Bigg(\frac{1}{2}\,A\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$\frac{A\,(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-$$

$$\frac{a\,(A+B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}+$$

$$\frac{A\,(a+b)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}-$$

$$\frac{a\,(A+B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}-$$

$$A\,b\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$A\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+A\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])$$

$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{a\,(A+B)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{A\,(a+b)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)-$$

$$\frac{1}{a\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}}$$

$$\left(2 A (a+b) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] - 2 a (A+B) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] + A \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right)$$

$$\left(-\text{Cos}\left[\frac{1}{2} (c+d x)\right] \text{Sec}[c+d x] \text{Sin}\left[\frac{1}{2} (c+d x)\right] + \text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x] \text{Tan}[c+d x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}{\sqrt{a+b \text{Cos}[c+d x]}}, x, 4, 0\right\}$$

$$\frac{2 (A-B) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}} + \frac{4 B \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}}$$

$$\left(2 \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \left((A-B) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] - 2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right) \sqrt{\text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1+\text{Sec}[c+d x]}\right) \Big/ \left(d \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]}{\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{(a+b)\,B\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(2\,A\,b-a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{B\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$-\Bigg(a\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-a\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$4\,A\,b\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,B\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,A\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(b\,d\,\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{4\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\,(4\,A\,b-3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\ +$$

$$\frac{(a-2\,b)\,B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{2\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\ -$$

$$\frac{1}{2\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(4\,a\,A\,b-3\,a^2\,B-4\,b^2\,B\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\ +$$

$$\frac{B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{2\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{(4\,A\,b-3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[2\,(c+d\,x)]}{4\,b\,d}\ -$$

$$\frac{1}{4\,b^2\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(-4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+8\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+4\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-8\,a\,A\,b\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+6\,a^2\,B\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$8 b^2 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-8 a A b\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^2 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+8 b^2 B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)(-4 A b+3 a B)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-2(a-2 b) b B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}}{(a+b\,\text{Cos}[c+d x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\left(2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(a^2A-6aAb+8Ab^2+3a^2B-6abB\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^2(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2b(Ab-aB)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2\left(a^2A-4Ab^2+3abB\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d}-$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(-5a^2Ab+8Ab^3+3a^3B-6ab^2B\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)}+\frac{2\left(-Ab^3\,\text{Sin}[c+dx]+ab^2B\,\text{Sin}[c+dx]\right)}{a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+\frac{2A\,\text{Tan}[c+dx]}{3a^2}\right)}{d}+$$

$$\left(2\left(\frac{5Ab}{3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}-\frac{8Ab^3}{3a^2\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}-\right.\right.$$

$$\frac{aB}{\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}+\frac{2b^2B}{a\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}+$$

$$\frac{aA\sqrt{\text{Sec}[c+dx]}}{3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{7Ab^2\sqrt{\text{Sec}[c+dx]}}{3a\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}-\frac{8Ab^4\sqrt{\text{Sec}[c+dx]}}{3a^3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{2bB\sqrt{\text{Sec}[c+dx]}}{\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2b^3B\sqrt{\text{Sec}[c+dx]}}{a^2\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{5Ab^2\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{3a\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\left.\frac{8Ab^4\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{3a^3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}-\frac{bB\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2b^3B\,\text{Cos}[2(c+dx)]\sqrt{\text{Sec}[c+dx]}}{a^2\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+dx]}}\right)$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\left(-2(a+b)\left(-5a^2Ab+8Ab^3+3a^3B-6ab^2B\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\right.$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(a^2-ab-2b^2\right)$$

$$\left(-4 A b + a (A + 3 B)\right) \sqrt{\frac{\text{Cos}[c + d x]}{1 + \text{Cos}[c + d x]}} \sqrt{\frac{a + b \text{Cos}[c + d x]}{(a + b) (1 + \text{Cos}[c + d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] -$$

$$\left(-5 a^2 A b + 8 A b^3 + 3 a^3 B - 6 a b^2 B\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3 a^3 \left(a^2 - b^2\right) d \sqrt{a + b \text{Cos}[c + d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}$$

$$\Bigg(\frac{1}{3 a^3 \left(a^2 - b^2\right) (a + b \text{Cos}[c + d x])^{3/2} \sqrt{\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}} b \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]} \text{Sin}[c + d x]$$

$$\Bigg(-2 (a + b) \left(-5 a^2 A b + 8 A b^3 + 3 a^3 B - 6 a b^2 B\right) \sqrt{\frac{\text{Cos}[c + d x]}{1 + \text{Cos}[c + d x]}} \sqrt{\frac{a + b \text{Cos}[c + d x]}{(a + b) (1 + \text{Cos}[c + d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] + 2 a \left(a^2 - a b - 2 b^2\right) \left(-4 A b + a (A + 3 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c + d x]}{1 + \text{Cos}[c + d x]}} \sqrt{\frac{a + b \text{Cos}[c + d x]}{(a + b) (1 + \text{Cos}[c + d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] -$$

$$\left(-5 a^2 A b + 8 A b^3 + 3 a^3 B - 6 a b^2 B\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg) -$$

$$\frac{1}{3 a^3 \left(a^2 - b^2\right) \sqrt{a + b \text{Cos}[c + d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}} \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]} \text{Tan}\left[\frac{1}{2} (c + d x)\right]$$

$$\Bigg(-2 (a + b) \left(-5 a^2 A b + 8 A b^3 + 3 a^3 B - 6 a b^2 B\right) \sqrt{\frac{\text{Cos}[c + d x]}{1 + \text{Cos}[c + d x]}} \sqrt{\frac{a + b \text{Cos}[c + d x]}{(a + b) (1 + \text{Cos}[c + d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] + 2 a \left(a^2 - a b - 2 b^2\right) \left(-4 A b + a (A + 3 B)\right)$$

$$\sqrt{\frac{\text{Cos}[c + d x]}{1 + \text{Cos}[c + d x]}} \sqrt{\frac{a + b \text{Cos}[c + d x]}{(a + b) (1 + \text{Cos}[c + d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] -$$

$$\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+$$

$$\frac{1}{3 a^3\left(a^2-b^2\right)\sqrt{a+b \operatorname{Cos}[c+d x]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\,2\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\Bigg(-\frac{1}{2}\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}(a+b)\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right)\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}$$

$$a\left(a^2-a b-2 b^2\right)(-4 A b+a(A+3 B))\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\ \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}(a+b)\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\ \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\right.$$

$$\left.\frac{(a+b \operatorname{Cos}[c+d x])\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}a\left(a^2-a b-2 b^2\right)(-4 A b+a(A+3 B))\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x])\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+$$

$$b\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \operatorname{Cos}[c+d x] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sin}[c+d x] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right)(a+b \operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sin}[c+d x] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$\frac{a\left(a^2-a b-2 b^2\right)(-4 A b+a(A+3 B)) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\frac{(a+b)\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\Bigg)+\Bigg(\Bigg(-2(a+b)\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(a^2-a b-2 b^2\right)(-4 A b+a(A+3 B))$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left(-5 a^2 A b+8 A b^3+3 a^3 B-6 a b^2 B\right) \operatorname{Cos}[c+d x]\ (a+b \operatorname{Cos}[c+d x])\ \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

$$\left(-\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \operatorname{Sec}[c+d x] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]\right)\Bigg)\Big/$$

$$\left(3 a^3\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^{3/2}}{(a+b \operatorname{Cos}[c+d x])^{3/2}}, x, 6, 0\right\}$$

$$-\frac{1}{a^2\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{a\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(a\,A-2\,A\,b+a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\;+\;\frac{2\,b\,(A\,b-a\,B)\,\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\;+$$

$$\frac{2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,\left(a^2-b^2\right)\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\mathrm{Sin}[c+d\,x]}{a^2\,\left(a^2-b^2\right)}-\frac{2\,\left(-A\,b^2\,\mathrm{Sin}[c+d\,x]+a\,b\,B\,\mathrm{Sin}[c+d\,x]\right)}{a\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}\;+$$

$$\Bigg(2\,\Bigg(-\frac{a\,A}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,b^2}{a\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-$$

$$\frac{b\,B}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{2\,A\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a^2\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\Bigg)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\Bigg(-2\,(a+b)\,\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,(-2\,A\,b+a\,(A+B))$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left(a^2\,A-2\,A\,b^2+a\,b\,B\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Big/$$

$$\left(a^2 \left(a^2-b^2\right) d \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \left(\frac{1}{a^2 \left(a^2-b^2\right)(a+b \operatorname{Cos}[c+d x])^{3/2} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\right.\right.$$

$$b \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x] \left(-2(a+b)\left(a^2 A-2 A b^2+a b B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\right.$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a(a+b)(-2 A b+a(A+B))$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(a^2 A-2 A b^2+a b B\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)-\right.$$

$$\frac{1}{a^2 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2(a+b)\left(a^2 A-2 A b^2+a b B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a(a+b)(-2 A b+a(A+B))$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left(a^2 A-2 A b^2+a b B\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{a^2 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\left(-\frac{1}{2}\left(a^2 A-2 A b^2+a b B\right) \operatorname{Cos}[c+d x]\,(a+b \operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^4-\right.$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}(a+b)\left(a^2 A-2 A b^2+a b B\right)\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}$$

$$a(a+b)(-2 A b+a(A+B))\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+d x]\operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}(a+b)\left(a^2 A-2 A b^2+a b B\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x])\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}a(a+b)(-2 A b+a(A+B))\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x])\operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+b\left(a^2 A-2 A b^2+a b B\right)\operatorname{Cos}[c+d x]$$

$$\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sin}[c+d x]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+\left(a^2 A-2 A b^2+a b B\right)(a+b \operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\operatorname{Sin}[c+d x]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-\left(a^2 A-2 A b^2+a b B\right)\operatorname{Cos}[c+d x]\,(a+b \operatorname{Cos}[c+d x])\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2+\frac{a(a+b)(-2 A b+a(A+B))\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(-a+b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}-$$

$$\frac{(a+b)\left(a^2 A-2 A b^2+a b B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\Bigg)+$$

$$\Bigg(\Bigg(-2(a+b)\left(a^2 A-2 A b^2+a b B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a(a+b)(-2 A b+a(A+B))$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left(a^2 A-2 A b^2+a b B\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}(c+d x)\right]\text{Sec}[c+d x]\,\text{Sin}\left[\frac{1}{2}(c+d x)\right]+\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]\,\text{Tan}[c+d x]\right)\Bigg)\Big/$$

$$\left(a^2\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}{(a+b\,\text{Cos}[c+d x])^{3/2}},x,5,0\right\}$$

$$-\frac{2(A b-a B)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{a(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2(A-B)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{2(A b-a B)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{a(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{2\,(-A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{a\,(a^2-b^2)}+\frac{2\,(-A\,b\,\mathrm{Sin}[c+d\,x]+a\,B\,\mathrm{Sin}[c+d\,x])}{(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}+$$

$$\left(\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\left((a+b)\right.\right.$$

$$\left((-A\,b+a\,B)\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(A-B)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left(\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,\mathrm{Sec}[c+d\,x]-$$

$$\left.\left.(A\,b-a\,B)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Big/$$

$$\left(\left(a^3-a\,b^2\right)\,d\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{\mathrm{Sec}[c+d\,x]}{1+\mathrm{Sec}[c+d\,x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A-B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{4\,B\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A\,b-a\,B)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{b\,(-a^2+b^2)}+\frac{2\,\left(a\,A\,b\,\mathrm{Sin}[c+d\,x]-a^2\,B\,\mathrm{Sin}[c+d\,x]\right)}{b\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}-$$

$$\left(2\left(a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+\right.\right.$$

$$2\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-2\,a^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+2\,b^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\,a^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+2\,b^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\,(-A\,b+a\,B)\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-b\,(a+b)\,(A-B)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)\right)\Big/$$

$$\left(b\,(a^2-b^2)\,d\,\sqrt{\frac{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{(a-b)\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(2\,a\,A\,b-3\,a^2\,B+b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{2\,(A\,b-a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\;+$$

$$\frac{1}{b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(2\,A\,b-3\,a\,B)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{2\,a\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{\left(2\,a\,A\,b-3\,a^2\,B+b^2\,B\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b^2\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{2\,a\,(-A\,b+a\,B)\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(a^2-b^2\right)}-\frac{2\,\left(a^2\,A\,b\,\mathrm{Sin}[c+d\,x]-a^3\,B\,\mathrm{Sin}[c+d\,x]\right)}{b^2\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}\;-$$

$$\Bigg(2\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$3\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$6\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$3\,a^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$4\,a^2\,A\,b\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;-4\,A\,b^3\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;-$$

$$6 a^3 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 6 a b^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$4 a^2 A b \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 4 A b^3 \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$6 a^3 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 6 a b^2 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$(a+b)\left(-2 a A b+3 a^2 B-b^2 B\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 2 b (a+b)(-A b+a B) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} \Bigg) \Big/$$

$$\left(b^2\left(-a^2+b^2\right) d \sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}}{(a+b \text{Cos}[c+d x])^{5/2}}, x, 8, 0\right\}$$

$$\left(2\left(8a^4Ab-28a^2Ab^3+16Ab^5-3a^5B+15a^3b^2B-8ab^4B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^4(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(a^4A-9a^3Ab+16a^2Ab^2+12aAb^3-16Ab^4+3a^4B-9a^3bB-6a^2b^2B+8ab^3B\right)\sqrt{\text{Cos}[c+dx]}\right.$$

$$\left.\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/$$

$$\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+\frac{2b(Ab-aB)\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}+$$

$$\frac{2b\left(10a^2Ab-6Ab^3-7a^3B+3ab^2B\right)\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^4A-13a^2Ab^2+8Ab^4+8a^3bB-4ab^3B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2d}-$$

$$\frac{2\left(8a^4Ab-28a^2Ab^3+16Ab^5-3a^5B+15a^3b^2B-8ab^4B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^4\left(a^2-b^2\right)^2d}$$

$$\frac{1}{3 a^4 \left(a^2-b^2\right)^2 d \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}$$

$$2 \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(\left(-8 a^4 A b+28 a^2 A b^3-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right] \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \left(a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-$$

$$(a+b) \left(-8 a^4 A b+28 a^2 A b^3-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+a (a+b)$$

$$\left(-16 A b^4+2 a^2 b^2 (8 A-3 B)-9 a^3 b (A+B)+4 a b^3 (3 A+2 B)+a^4 (A+3 B)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+\frac{1}{d}$$

$$\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \left(\frac{2 \left(-8 a^4 A b+28 a^2 A b^3-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B\right) \text{Sin}[c+d x]}{3 a^4 \left(a^2-b^2\right)^2}+\right.$$

$$\frac{2 \left(-A b^3 \text{Sin}[c+d x]+a b^2 B \text{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+$$

$$\left.\frac{2 \left(-11 a^2 A b^3 \text{Sin}[c+d x]+7 A b^5 \text{Sin}[c+d x]+8 a^3 b^2 B \text{Sin}[c+d x]-4 a b^4 B \text{Sin}[c+d x]\right)}{3 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}+\frac{2 A \text{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B \text{Cos}[c+d x]) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^{5/2}}, x, 7, 0\right\}$$

$$-\left(2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3A-9a^2Ab-6aAb^2+8Ab^3+3a^3B+3a^2bB-2ab^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2b(Ab-aB)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{2b\left(8a^2Ab-4Ab^3-5a^3B+ab^2B\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}$$

$$\left(\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2}-\frac{2\left(-Ab^2\,\text{Sin}[c+dx]+abB\,\text{Sin}[c+dx]\right)}{3a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}-\right.$$

$$\left.\frac{2\left(-8a^2Ab^2\,\text{Sin}[c+dx]+4Ab^4\,\text{Sin}[c+dx]+5a^3bB\,\text{Sin}[c+dx]-ab^3B\,\text{Sin}[c+dx]\right)}{3a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)+$$

$$\frac{1}{3a^3\left(a^2-b^2\right)^2d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\left(\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+dx)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)-$$

$$(a+b)\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+$$

$$a(a+b)\left(8Ab^3+3a^2b(-3A+B)+3a^3(A+B)-2ab^2(3A+B)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+B\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\left(2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\left(2\left(3\,a^2\,A+3\,a\,A\,b-2\,A\,b^2-3\,a^2\,B-a\,b\,B\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{2\,b\,(A\,b-a\,B)\,\mathrm{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B\right)\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,(a-b)\,(a+b)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{2\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\mathrm{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2}+\frac{2\,(-A\,b\,\mathrm{Sin}[c+d\,x]+a\,B\,\mathrm{Sin}[c+d\,x])}{3\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{2\left(-5\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+A\,b^3\,\mathrm{Sin}[c+d\,x]+2\,a^3\,B\,\mathrm{Sin}[c+d\,x]+2\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]\right)}{3\,a\,\left(a^2-b^2\right)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)+$$

$$\left(2\left(-\frac{2\,a\,A\,b}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,b^3}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{a^2\,B}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{b^2\,B}{3\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{a^2\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{5\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{a\,b\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{b^3\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{2\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\left.\frac{2\,A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,b\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{b^3\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\left(a^2-b^2\right)^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\left(2\,(a+b)\,\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-2 A b^2+3 a^2 (A-B)+a b (3 A-B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\left(a^3-a b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\Bigg(\frac{1}{3\left(a^3-a b^2\right)^2 (a+b \text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]}\ \text{Sin}[c+d x]$$

$$\Bigg(2 (a+b)\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-2 A b^2+3 a^2 (A-B)+a b (3 A-B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)-$$

$$\frac{1}{3\left(a^3-a b^2\right)^2\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(2 (a+b)\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-2 A b^2+3 a^2 (A-B)+a b (3 A-B)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{3\,\left(a^3-a\,b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\Bigg(\frac{1}{2}\,\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}$$

$$(a+b)\,\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,a\,(a+b)\,\left(-2\,A\,b^2+3\,a^2\,(A-B)+a\,b\,(3\,A-B)\right)$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}\,(a+b)\,\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}\,a\,(a+b)\,\left(-2\,A\,b^2+3\,a^2\,(A-B)+a\,b\,(3\,A-B)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)-$$

$$b\,\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B\right)\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Sin}[c+d x] \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]+$$

$$\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \operatorname{Cos}[c+d x] (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2+$$

$$\frac{a (a+b) \left(-2 A b^2+3 a^2 (A-B)+a b (3 A-B)\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}+$$

$$\left.\frac{(a+b) \left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \sqrt{1-\frac{(-a+b) \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}}}{\sqrt{1-\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]^2}}\right)$$

$$+\left(\left(2 (a+b) \left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}}\right.\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a (a+b) \left(-2 A b^2+3 a^2 (A-B)+a b (3 A-B)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b) (1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$\left.\left(-6 a^2 A b+2 A b^3+3 a^3 B+a b^2 B\right) \operatorname{Cos}[c+d x] (a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]\right)$$

$$\left.\left(-\operatorname{Cos}\left[\frac{1}{2} (c+d x)\right] \operatorname{Sec}[c+d x] \operatorname{Sin}\left[\frac{1}{2} (c+d x)\right]+\operatorname{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]\right)\right) \Big/$$

$$\left.\left.\left(3 \left(a^3-a b^2\right)^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{\operatorname{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \operatorname{Sec}[c+d x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B \operatorname{Cos}[c+d x]}{(a+b \operatorname{Cos}[c+d x])^{5/2} \sqrt{\operatorname{Sec}[c+d x]}}, x, 6, 0\right\}$$

$$\left(2\left(3a^2A+Ab^2-4abB\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a(a-b)^2(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$\left(2(3aA+Ab-aB-3bB)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3(a-b)^2(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$\frac{2(Ab-aB)\,\text{Sin}[c+dx]}{3\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}\sqrt{\text{Sec}[c+dx]}}+\frac{2\left(3a^2A+Ab^2-4abB\right)\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a(a-b)(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(-\frac{2\left(3a^2A+Ab^2-4abB\right)\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)^2}-\frac{2\left(-aAb\,\text{Sin}[c+dx]+a^2B\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\right.$$

$$\left.\frac{2\left(2a^2Ab\,\text{Sin}[c+dx]+2Ab^3\,\text{Sin}[c+dx]+a^3B\,\text{Sin}[c+dx]-5ab^2B\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)+$$

$$\frac{1}{3a\left(a^2-b^2\right)^2d\sqrt{\frac{\text{Cos}[c+dx]}{(1+\text{Cos}[c+dx])^2}}\sqrt{\frac{\text{Sec}[c+dx]}{1+\text{Sec}[c+dx]}}}\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{a+b\,\text{Cos}[c+dx]}$$

$$\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}$$

$$\left(\frac{1}{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}\left(\left(3a^2A+Ab^2-4abB\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.\right.$$

$$a(-3aA-Ab+aB+3bB)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\Bigg)\left(\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}$$

$$\left.\text{Sec}[c+dx]+\left(3a^2A+Ab^2-4abB\right)\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]}{(a+b\,\text{Cos}[c+dx])^{5/2}\,\text{Sec}[c+dx]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\left(2\left(4Ab^3+3a^3B-7ab^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3(a-b)^2b^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(aAb+3Ab^2+2a^2B-3abB-3b^2B\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3(a-b)^2b(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{4B\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}}{b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2a(Ab-aB)\,\text{Sin}[c+dx]}{3b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}\sqrt{\text{Sec}[c+dx]}}-$$

$$\frac{2\left(4Ab^3+3a^3B-7ab^2B\right)\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3(a-b)b^2(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(4Ab^3+3a^3B-7ab^2B\right)\text{Sin}[c+dx]}{3b^2\left(-a^2+b^2\right)^2}+\frac{2\left(-a^2Ab\,\text{Sin}[c+dx]+a^3B\,\text{Sin}[c+dx]\right)}{3b^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}-\right.$$

$$\left.\frac{2\left(-a^3Ab\,\text{Sin}[c+dx]+5aAb^3\,\text{Sin}[c+dx]+4a^4B\,\text{Sin}[c+dx]-8a^2b^2B\,\text{Sin}[c+dx]\right)}{3b^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)+$$

$$\left(2\left(4aAb^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]+4Ab^4\text{Tan}\left[\frac{1}{2}(c+dx)\right]+3a^4B\text{Tan}\left[\frac{1}{2}(c+dx)\right]+3a^3bB\text{Tan}\left[\frac{1}{2}(c+dx)\right]-\right.\right.$$

$$7a^2b^2B\text{Tan}\left[\frac{1}{2}(c+dx)\right]-7ab^3B\text{Tan}\left[\frac{1}{2}(c+dx)\right]-8Ab^4\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3-6a^3bB\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3+$$

$$14ab^3B\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3-4aAb^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+4Ab^4\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-3a^4B\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+$$

$$3a^3bB\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+7a^2b^2B\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-7ab^3B\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+$$

$$6a^4B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-12\,a^2\,b^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$6\,b^4\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+6\,a^4\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$12\,a^2\,b^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+6\,b^4\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(4\,A\,b^3+3\,a^3\,B-7\,a\,b^2\,B\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$b\,(a+b)\left(a\,b\,(A-3\,B)+3\,b^2\,(A-B)+2\,a^2\,B\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg)\Bigg/$$

$$\left(3\,b^2\left(a^2-b^2\right)^2 d\sqrt{\frac{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{5/2}},\ x,\ 9,\ 0\right\}$$

$$-\left(\left(6 a^3 A b-14 a A b^3-15 a^4 B+26 a^2 b^2 B-3 b^4 B\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3(a-b)^2 b^3(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(2\left(2 a^2 A b-3 a A b^2-3 A b^3-5 a^3 B+3 a^2 b B+6 a b^2 B\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3(a-b)^2 b^2(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{1}{b^3 d \sqrt{a+b \text{Cos}[c+d x]}} 2(2 A b-5 a B) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}+$$

$$\frac{2 a(A b-a B) \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^{3/2} \text{Sec}[c+d x]^{3/2}}+\frac{2 a\left(2 a^2 A b-6 A b^3-5 a^3 B+9 a b^2 B\right) \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{\left(6 a^3 A b-14 a A b^3-15 a^4 B+26 a^2 b^2 B-3 b^4 B\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{d} \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}$$

$$\left(-\frac{2 a\left(-3 a^2 A b+7 A b^3+6 a^3 B-10 a b^2 B\right) \text{Sin}[c+d x]}{3 b^3\left(a^2-b^2\right)^2}-\frac{2\left(-a^3 A b \text{Sin}[c+d x]+a^4 B \text{Sin}[c+d x]\right)}{3 b^3\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\right.$$

$$\left.\frac{2\left(-4 a^4 A b \text{Sin}[c+d x]+8 a^2 A b^3 \text{Sin}[c+d x]+7 a^5 B \text{Sin}[c+d x]-11 a^3 b^2 B \text{Sin}[c+d x]\right)}{3 b^3\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)-$$

$$\frac{1}{3 b^3\left(a^2-b^2\right)^2 d\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}} \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\left(6 a^4 A b \text{Tan}\left[\frac{1}{2}(c+d x)\right]+6 a^3 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]-14 a^2 A b^3 \text{Tan}\left[\frac{1}{2}(c+d x)\right]-14 a A b^4 \text{Tan}\left[\frac{1}{2}(c+d x)\right]-\right.$$

$$15 a^5 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^4 b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]+26 a^3 b^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]+26 a^2 b^3 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$3 a b^4 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-3 b^5 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-12 a^3 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+28 a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$30 a^4 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-52 a^2 b^3 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+6 b^5 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-6 a^4 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$6 a^3 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+14 a^2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-14 a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+15 a^5 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$15 a^4 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-26 a^3 b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+26 a^2 b^3 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+3 a b^4 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$3 b^5 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+12 a^4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-24 a^2 A b^3 \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$12 A b^5 \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-30 a^5 B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$60 a^3 b^2 B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-30 a b^4 B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$12 a^4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-24\,a^2\,A\,b^3\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$12\,A\,b^5\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^5\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$60\,a^3\,b^2\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a\,b^4\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(-6\,a^3\,A\,b+14\,a\,A\,b^3+15\,a^4\,B-26\,a^2\,b^2\,B+3\,b^4\,B\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\,(a+b)\left(3\,A\,b^3+3\,a\,b^2\,(A-2\,B)+5\,a^3\,B-a^2\,b\,(2\,A+3\,B)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{a\,B+b\,B\,\mathrm{Cos}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{(a+b)\,B\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,B\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{B\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,B\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(2\,(a+b)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^3,\,x,\,4,\,0\right\}$$

$$b\,C\,x+\frac{a\,(A+2\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{A\,b\,\text{Tan}[c+d\,x]}{2\,d}+\frac{A\,(b+a\,\text{Sec}[c+d\,x])\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4}\left(4\,b\,C\,x-\frac{2\,a\,(A+2\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\right.$$

$$\frac{2\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+\frac{4\,a\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{d}+$$

$$\left.\frac{a\,A}{d\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{a\,A}{d\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,A\,b\,\text{Tan}[c+d\,x]}{d}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^5,\,x,\,6,\,0\right\}$$

$$\frac{a\,(3\,A+4\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{b\,(2\,A+3\,C)\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,(3\,A+4\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+$$

$$\frac{A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{12\,d}+\frac{A\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}-\frac{a\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{3\,a\,A\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{a\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$
$$\frac{a\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}-$$
$$\frac{3\,a\,A}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$
$$\frac{2\,A\,b\,\text{Tan}[c+d\,x]}{3\,d}+\frac{b\,C\,\text{Tan}[c+d\,x]}{d}+\frac{A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{b\,(3\,A+4\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{2\,a\,(4\,A+5\,C)\,\text{Tan}[c+d\,x]}{15\,d}+\frac{b\,(3\,A+4\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a\,(4\,A+5\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,d}+\frac{A\,b\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{20\,d}+\frac{A\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$
$$-\frac{3\,A\,b\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}-\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{3\,A\,b\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$
$$\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}-$$
$$\frac{3\,A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{8\,a\,A\,\text{Tan}[c+d\,x]}{15\,d}+$$
$$\frac{2\,a\,C\,\text{Tan}[c+d\,x]}{3\,d}+\frac{4\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,d}+\frac{a\,C\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^2\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\right\}$$

$$2\,a\,b\,C\,x+\frac{\left(a^2\,A+2\,A\,b^2+2\,a^2\,C\right)\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}-\frac{b^2\,(3\,A-2\,C)\,\text{Sin}[c+d\,x]}{2\,d}+$$
$$\frac{A\,b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Tan}[c+d\,x]}{d}+\frac{A\,(a+b\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4d}\left(8abC(c+dx)-2\left(2Ab^2+a^2(A+2C)\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$
$$2\left(2Ab^2+a^2(A+2C)\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+$$
$$\frac{a^2A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{8aAb\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]}-$$
$$\left.\frac{a^2A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{8aAb\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]}+4b^2C\,\text{Sin}[c+dx]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^2\left(A+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^4,\ x,\ 5,\ 0\right\}$$

$$b^2Cx+\frac{ab(A+2C)\,\text{ArcTanh}[\text{Sin}[c+dx]]}{d}+\frac{\left(2a^2A+Ab^2+3a^2C\right)\text{Tan}[c+dx]}{3d}+$$
$$\frac{Ab(b+a\,\text{Sec}[c+dx])\,\text{Tan}[c+dx]}{3d}+\frac{A(b+a\,\text{Sec}[c+dx])^2\,\text{Tan}[c+dx]}{3d}$$

$$\frac{1}{12d}\left(12b^2cC+12b^2Cdx-12ab(A+2C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$
$$12aAb\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+24abC\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+$$
$$\frac{a^2A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{6aAb}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}-$$
$$\frac{a^2A}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}-\frac{6aAb}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$
$$\left.2\left(4a^2A+3Ab^2+3a^2C-a^2A\,\text{Cos}[c+dx]+\left(3Ab^2+a^2(2A+3C)\right)\text{Cos}[2(c+dx)]\right)\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^2\left(A+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^5,\ x,\ 6,\ 0\right\}$$

$$\frac{\left(3a^2A+4Ab^2+4a^2C+8b^2C\right)\text{ArcTanh}[\text{Sin}[c+dx]]}{8d}+$$
$$\frac{2ab(2A+3C)\,\text{Tan}[c+dx]}{3d}+\frac{\left(9a^2A+2Ab^2+12a^2C\right)\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{24d}+$$
$$\frac{Ab(a+b\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{6d}+\frac{A(a+b\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^3\,\text{Tan}[c+dx]}{4d}$$

$$\frac{\left(-3 a^2 A-4 A b^2-4 a^2 C-8 b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+$$
$$\frac{\left(3 a^2 A+4 A b^2+4 a^2 C+8 b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+$$
$$\frac{a^2 A}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{9 a^2 A+8 a A b+12 A b^2+12 a^2 C}{48 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+$$
$$\frac{a A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{3 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}-\frac{a^2 A}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+$$
$$\frac{a A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{3 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}+\frac{-9 a^2 A-8 a A b-12 A b^2-12 a^2 C}{48 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+$$
$$\frac{2\left(2 a A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+\frac{2\left(2 a A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^3\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^5, x, 6, 0\right\}$$

$$b^3 C x+\frac{a\left(3 a^2 A+12 A b^2+4 a^2 C+24 b^2 C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{8 d}+$$
$$\frac{b\left(13 a^2 A+2 A b^2+20 a^2 C\right) \text{Tan}[c+d x]}{8 d}+\frac{\left(3 a^2 A+2 A b^2+4 a^2 C\right)(b+a \text{Sec}[c+d x]) \text{Tan}[c+d x]}{8 d}+$$
$$\frac{A b(b+a \text{Sec}[c+d x])^2 \text{Tan}[c+d x]}{4 d}+\frac{A(b+a \text{Sec}[c+d x])^3 \text{Tan}[c+d x]}{4 d}$$
$$\frac{b^3 C(c+d x)}{d}+\frac{\left(-3 a^3 A-12 a A b^2-4 a^3 C-24 a b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+$$
$$\frac{\left(3 a^3 A+12 a A b^2+4 a^3 C+24 a b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+\frac{a^3 A}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+$$
$$\frac{3 a^3 A+4 a^2 A b+12 a A b^2+4 a^3 C}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{a^2 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{2 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}-$$
$$\frac{a^3 A}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{a^2 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{2 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}+$$
$$\frac{-3 a^3 A-4 a^2 A b-12 a A b^2-4 a^3 C}{16 d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+\frac{2 a^2 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+A b^3 \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a^2 b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+$$
$$\frac{2 a^2 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+A b^3 \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a^2 b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{d\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^4\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^4, x, 7, 0\right\}$$

$$\frac{1}{2} b^2 \left(2 A b^2+12 a^2 C+b^2 C\right) x+\frac{2 a b \left(a^2 A+2 A b^2+2 a^2 C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{d}-\frac{a b \left(4 a^2 A+26 A b^2+6 a^2 C-21 b^2 C\right) \text{Sin}[c+d x]}{6 d}-\frac{b \left(4 a^2 A+18 A b^2+6 a^2 C-3 b^2 C\right) (a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{6 d}+\frac{\left(2 a^2 A+6 A b^2+3 a^2 C\right) (a+b \text{Cos}[c+d x])^2 \text{Tan}[c+d x]}{3 d}+\frac{2 A b (a+b \text{Cos}[c+d x])^3 \text{Sec}[c+d x] \text{Tan}[c+d x]}{3 d}+\frac{A (a+b \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d}$$

$$\frac{b^2 \left(2 A b^2+12 a^2 C+b^2 C\right) (c+d x) \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4}{2 d (a+b \text{Cos}[c+d x])^4}-\frac{2 \left(a^3 A b+2 a A b^3+2 a^3 b C\right) \text{Cos}[c+d x]^4 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] (b+a \text{Sec}[c+d x])^4}{d (a+b \text{Cos}[c+d x])^4}+\frac{2 \left(a^3 A b+2 a A b^3+2 a^3 b C\right) \text{Cos}[c+d x]^4 \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right] (b+a \text{Sec}[c+d x])^4}{d (a+b \text{Cos}[c+d x])^4}+$$

$$\frac{\left(a^4 A+12 a^3 A b\right) \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4}{12 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+\frac{a^4 A \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{6 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+$$

$$\frac{a^4 A \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{6 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+\frac{\left(-a^4 A-12 a^3 A b\right) \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4}{12 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+$$

$$\frac{\text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \left(2 a^4 A \text{Sin}\left[\frac{1}{2} (c+d x)\right]+18 a^2 A b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+3 a^4 C \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{3 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+$$

$$\frac{\text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \left(2 a^4 A \text{Sin}\left[\frac{1}{2} (c+d x)\right]+18 a^2 A b^2 \text{Sin}\left[\frac{1}{2} (c+d x)\right]+3 a^4 C \text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}{3 d (a+b \text{Cos}[c+d x])^4 \left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)}+$$

$$\frac{4 a b^3 C \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \text{Sin}[c+d x]}{d (a+b \text{Cos}[c+d x])^4}+\frac{b^4 C \text{Cos}[c+d x]^4 (b+a \text{Sec}[c+d x])^4 \text{Sin}[2 (c+d x)]}{4 d (a+b \text{Cos}[c+d x])^4}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \text{Cos}[c+d x])^4 \left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^5, x, 7, 0\right\}$$

$$4 a b^3 C x+\frac{\left(3 a^4 A+24 a^2 A b^2+8 A b^4+4 a^4 C+48 a^2 b^2 C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{8 d}-\frac{b^2 \left(55 a^2 A+50 A b^2+84 a^2 C-24 b^2 C\right) \text{Sin}[c+d x]}{24 d}+\frac{b \left(23 a^2 A+12 A b^2+36 a^2 C\right) (a+b \text{Cos}[c+d x]) \text{Tan}[c+d x]}{12 d}+\frac{\left(3 a^2 A+4 A b^2+4 a^2 C\right) (a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x] \text{Tan}[c+d x]}{8 d}+\frac{A b (a+b \text{Cos}[c+d x])^3 \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 d}+\frac{A (a+b \text{Cos}[c+d x])^4 \text{Sec}[c+d x]^3 \text{Tan}[c+d x]}{4 d}$$

$$\frac{4 a b^3 C (c+d x)}{d}+\frac{\left(-3 a^4 A-24 a^2 A b^2-8 A b^4-4 a^4 C-48 a^2 b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+$$
$$\frac{\left(3 a^4 A+24 a^2 A b^2+8 A b^4+4 a^4 C+48 a^2 b^2 C\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]}{8 d}+$$
$$\frac{a^4 A}{16 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+\frac{9 a^4 A+16 a^3 A b+72 a^2 A b^2+12 a^4 C}{48 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+$$
$$\frac{2 a^3 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{3 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}-\frac{a^4 A}{16 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^4}+$$
$$\frac{2 a^3 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]}{3 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^3}+\frac{-9 a^4 A-16 a^3 A b-72 a^2 A b^2-12 a^4 C}{48 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)^2}+$$
$$\frac{4 \left(2 a^3 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a A b^3 \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a^3 b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+$$
$$\frac{4 \left(2 a^3 A b \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a A b^3 \text{Sin}\left[\frac{1}{2}(c+d x)\right]+3 a^3 b C \text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}{3 d \left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+\frac{b^4 C \text{Sin}[c+d x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{a+b \text{Cos}[c+d x]}, x, 4, 0\right\}$$

$$\frac{C x}{b}-\frac{2 \left(A b^2+a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a b \sqrt{a^2-b^2}\, d}+\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a d}$$
$$\Bigg(2 \text{Cos}[c+d x] (C \text{Cos}[c+d x]+A \text{Sec}[c+d x])$$
$$\Bigg(2 \left(A b^2+a^2 C\right) \text{ArcTanh}\left[\frac{\text{Sec}\left[\frac{d x}{2}\right] (\text{Cos}[c]-i \text{Sin}[c]) \left(a \text{Sin}\left[\frac{d x}{2}\right]-b \text{Sin}\left[c+\frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2}}\right] (\text{Cos}[c]-i \text{Sin}[c])+$$
$$\left(a C d x-A b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+A b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]\right)$$
$$\sqrt{\left(-a^2+b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2}\Bigg)\Bigg) \Big/$$
$$\left(a b d (2 A+C+C \text{Cos}[2 (c+d x)]) \sqrt{\left(-a^2+b^2\right) (\text{Cos}[2 c]-i \text{Sin}[2 c])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^2}{a+b \text{Cos}[c+d x]}, x, 4, 0\right\}$$

$$\frac{2\left(A b^2+a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^2 \sqrt{a^2-b^2}\, d}-\frac{A b \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}+\frac{A \text{Tan}[c+d x]}{a d}$$

$$\frac{1}{a^2 d (2 A+C+C \text{Cos}[2(c+d x)])}$$

$$2 \text{Cos}[c+d x]^2 \left(C+A \text{Sec}[c+d x]^2\right) \left(A b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-A b \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\right.$$

$$\frac{2\left(A b^2+a^2 C\right) \text{ArcTanh}\left[\frac{\text{Sec}\left[\frac{d x}{2}\right](\text{Cos}[c]-i \text{Sin}[c])\left(a \text{Sin}\left[\frac{d x}{2}\right]-b \text{Sin}\left[c+\frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right)(\text{Cos}[c]-i \text{Sin}[c])^2}}\right](\text{Cos}[c]-i \text{Sin}[c])}{\sqrt{\left(-a^2+b^2\right)(\text{Cos}[c]-i \text{Sin}[c])^2}}+$$

$$\left.\frac{a A \text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]-\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}+\frac{a A \text{Sin}\left[\frac{d x}{2}\right]}{\left(\text{Cos}\left[\frac{c}{2}\right]+\text{Sin}\left[\frac{c}{2}\right]\right)\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right)}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^3}{a+b \text{Cos}[c+d x]}, x, 5, 0\right\}$$

$$-\frac{2 b\left(A b^2+a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3 \sqrt{a^2-b^2}\, d}+$$

$$\frac{\left(a^2 A+2 A b^2+2 a^2 C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 a^3 d}-\frac{A b \text{Tan}[c+d x]}{a^2 d}+\frac{A \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 a d}$$

$$\frac{1}{2 a^3 d (2 A + C + C \operatorname{Cos}[2 (c + d x)])} \operatorname{Cos}[c + d x]^2 \left(C + A \operatorname{Sec}[c + d x]^2\right) \left(-2 \left(2 A b^2 + a^2 (A + 2 C)\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + 2 \left(2 A b^2 + a^2 (A + 2 C)\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + \frac{8 b \left(A b^2 + a^2 C\right) \operatorname{ArcTanh}\left[\frac{\operatorname{Sec}\left[\frac{d x}{2}\right] (\operatorname{Cos}[c] - i \operatorname{Sin}[c]) \left(a \operatorname{Sin}\left[\frac{d x}{2}\right] - b \operatorname{Sin}\left[c + \frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2 - b^2\right) (\operatorname{Cos}[c] - i \operatorname{Sin}[c])^2}}\right] (\operatorname{Cos}[c] - i \operatorname{Sin}[c])}{\sqrt{\left(-a^2 + b^2\right) (\operatorname{Cos}[c] - i \operatorname{Sin}[c])^2}} + \frac{a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{4 a A b \operatorname{Sin}\left[\frac{d x}{2}\right]}{\left(\operatorname{Cos}\left[\frac{c}{2}\right] - \operatorname{Sin}\left[\frac{c}{2}\right]\right) \left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)} - \frac{a^2 A}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} - \frac{4 a A b \operatorname{Sin}\left[\frac{d x}{2}\right]}{\left(\operatorname{Cos}\left[\frac{c}{2}\right] + \operatorname{Sin}\left[\frac{c}{2}\right]\right) \left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^4}{a + b \operatorname{Cos}[c + d x]}, x, 6, 0\right\}$$

$$\frac{2 b^2 \left(A b^2 + a^2 C\right) \operatorname{ArcTan}\left[\frac{(a - b) \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]}{\sqrt{a^2 - b^2}}\right]}{a^4 \sqrt{a^2 - b^2}\, d} - \frac{b \left(a^2 A + 2 A b^2 + 2 a^2 C\right) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{2 a^4 d} + \frac{\left(2 a^2 A + 3 A b^2 + 3 a^2 C\right) \operatorname{Tan}[c + d x]}{3 a^3 d} - \frac{A b \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 a^2 d} + \frac{A \operatorname{Sec}[c + d x]^2 \operatorname{Tan}[c + d x]}{3 a d}$$

$$\frac{1}{12 a^4 d} \left(-\frac{24 b^2 \left(A b^2 + a^2 C\right) \operatorname{ArcTanh}\left[\frac{(a - b) \operatorname{Tan}\left[\frac{1}{2} (c + d x)\right]}{\sqrt{-a^2 + b^2}}\right]}{\sqrt{-a^2 + b^2}} + 6 b \left(2 A b^2 + a^2 (A + 2 C)\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 6 b \left(2 A b^2 + a^2 (A + 2 C)\right) \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + \frac{a^2 A (a - 3 b)}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{2 a^3 A \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} + \frac{4 a \left(3 A b^2 + a^2 (2 A + 3 C)\right) \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]}{\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]} + \frac{2 a^3 A \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} - \frac{a^2 A (a - 3 b)}{\left(\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{4 a \left(3 A b^2 + a^2 (2 A + 3 C)\right) \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]}{\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 4,\ 0\right\}$$

$$-\frac{2\,b\left(2\,a^2\,A-A\,b^2+a^2\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^2\left(a^2-b^2\right)^{3/2}d}+\frac{A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^2\,d}+\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a^2\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,(c+d\,x)])}2\,\mathrm{Cos}[c+d\,x]\,(C\,\mathrm{Cos}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x])$$

$$\left(-A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\right.$$

$$\frac{2\,b\left(-A\,b^2+a^2\,(2\,A+C)\right)\mathrm{ArcTanh}\left[\frac{\mathrm{Sec}\left[\frac{d\,x}{2}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])\left(a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^3}{\left(\left(-a^2+b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2\right)^{3/2}}+$$

$$\left.\frac{a\left(A\,b^2+a^2\,C\right)\mathrm{Sec}[c]\,(-a\,\mathrm{Sin}[c]+b\,\mathrm{Sin}[d\,x])}{b\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$\frac{2\left(3\,a^2\,A\,b^2-2\,A\,b^4+a^4\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\left(a^2-b^2\right)^{3/2}d}-$$

$$\frac{2\,A\,b\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^3\,d}+\frac{\left(a^2\,A-2\,A\,b^2-a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a^2\left(a^2-b^2\right)d}+\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{a^3\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,(c+d\,x)])}2\,\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)$$

$$\left(2\,A\,b\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-2\,A\,b\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$

$$\frac{2\left(3\,a^2\,A\,b^2-2\,A\,b^4+a^4\,C\right)\mathrm{ArcTanh}\left[\frac{\mathrm{Sec}\left[\frac{d\,x}{2}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])\left(a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^3}{\left(\left(-a^2+b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2\right)^{3/2}}+$$

$$\frac{a\left(A\,b^2+a^2\,C\right)\mathrm{Sec}[c]\,(a\,\mathrm{Sin}[c]-b\,\mathrm{Sin}[d\,x])}{\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])}+\frac{a\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}+$$

$$\left.\frac{a\,A\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 6,\ 0\right\}$$

$$-\frac{2\,b\left(4\,a^2\,A\,b^2-3\,A\,b^4+2\,a^4\,C-a^2\,b^2\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4\left(a^2-b^2\right)^{3/2}\,d}+\frac{\left(a^2\,A+6\,A\,b^2+2\,a^2\,C\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,a^4\,d}-$$

$$\frac{b\left(2\,a^2\,A-3\,A\,b^2-a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a^3\left(a^2-b^2\right)d}+\frac{\left(a^2\,A-3\,A\,b^2-2\,a^2\,C\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{2\,a^2\left(a^2-b^2\right)d}+\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{\left(-a^2\,A-6\,A\,b^2-2\,a^2\,C\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^4\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{\left(a^2\,A+6\,A\,b^2+2\,a^2\,C\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^4\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{\left(a^2-b^2\right)(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}\left(4\,a^2\,A\,b^2-3\,A\,b^4+2\,a^4\,C-a^2\,b^2\,C\right)\mathrm{Cos}[c+d\,x]^2$$

$$\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(\left(4\,i\,b\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Cos}[c]\right)\Big/$$

$$\left(a^4\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)+$$

$$\left(4\,b\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Sin}[c]\right)\Big/$$

$$\left(a^4\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)\Bigg)-$$

$$\frac{2\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Sec}[c]\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(a\,A\,b^3\,\mathrm{Sin}[c]+a^3\,b\,C\,\mathrm{Sin}[c]-A\,b^4\,\mathrm{Sin}[d\,x]-a^2\,b^2\,C\,\mathrm{Sin}[d\,x]\right)}{a^3\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{A\,\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{2\,a^2\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}-$$

$$\frac{4\,A\,b\,\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{a^3\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}-$$

$$\frac{A\,\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)}{2\,a^2\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)^2}-$$

$$\frac{4\,A\,b\,\mathrm{Cos}[c+d\,x]^2\left(C+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{a^3\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$-\frac{b\left(6\,a^4\,A-5\,a^2\,A\,b^2+2\,A\,b^4+3\,a^4\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\left(a^2-b^2\right)^{5/2}\,d}+\frac{A\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^3\,d}+$$

$$\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{2\,a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{\left(5\,a^2\,A\,b^2-2\,A\,b^4+a^4\,C+2\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{2\,a^2\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{2\,a^3\,d\,(2\,A+C+C\,\mathrm{Cos}[2\,(c+d\,x)])}\,\mathrm{Cos}[c+d\,x]\,(C\,\mathrm{Cos}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x])$$

$$\Bigg(-4\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+4\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$

$$\frac{4\,b\left(-5\,a^2\,A\,b^2+2\,A\,b^4+3\,a^4\,(2\,A+C)\right)\mathrm{ArcTanh}\left[\frac{\mathrm{Sec}\left[\frac{d\,x}{2}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])\left(a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]-b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])}{\left(a^2-b^2\right)^2\sqrt{\left(-a^2+b^2\right)(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}-$$

$$\Big(a\,\mathrm{Sec}[c]\left(\left(2\,a^2+b^2\right)\left(-2\,A\,b^4+a^4\,C+a^2\,b^2\,(5\,A+2\,C)\right)\mathrm{Sin}[c]+b\left(-a\left(-7\,A\,b^4+4\,a^4\,C+a^2\,b^2\,(16\,A+5\,C)\right)\mathrm{Sin}[d\,x]+b\left(a\,b\left(-A\,b^2+a^2\,(4\,A+3\,C)\right)\mathrm{Sin}[2\,c+d\,x]-\right.\right.\right.$$

$$\left.\left.\left.\left(-2\,A\,b^4+a^4\,C+a^2\,b^2\,(5\,A+2\,C)\right)\mathrm{Sin}[c+2\,d\,x]\right)\right)\right)\Big/\left(b\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 6,\ 0\right\}$$

$$\frac{\left(12\,a^4\,A\,b^2-15\,a^2\,A\,b^4+6\,A\,b^6+2\,a^6\,C+a^4\,b^2\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4\left(a^2-b^2\right)^{5/2}\,d}-$$

$$\frac{3\,A\,b\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^4\,d}+\frac{\left(2\,a^4\,A-11\,a^2\,A\,b^2+6\,A\,b^4-3\,a^4\,C\right)\mathrm{Tan}[c+d\,x]}{2\,a^3\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Tan}[c+d\,x]}{2\,a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{\left(6\,a^2\,A\,b^2-3\,A\,b^4+2\,a^4\,C+a^2\,b^2\,C\right)\mathrm{Tan}[c+d\,x]}{2\,a^2\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{4 a^4 d (2 A + C + C \operatorname{Cos}[2 (c + d x)])} \operatorname{Cos}[c + d x] \left(C + A \operatorname{Sec}[c + d x]^2\right)$$

$$\left(24 A b \operatorname{Cos}[c + d x] \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] - \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - 24 A b \operatorname{Cos}[c + d x] \operatorname{Log}\left[\operatorname{Cos}\left[\frac{1}{2} (c + d x)\right] + \operatorname{Sin}\left[\frac{1}{2} (c + d x)\right]\right] - \right.$$

$$\left(8 \left(-15 a^2 A b^4 + 6 A b^6 + 2 a^6 C + a^4 b^2 (12 A + C)\right) \operatorname{ArcTanh}\left[\frac{\operatorname{Sec}\left[\frac{d x}{2}\right] (\operatorname{Cos}[c] - i \operatorname{Sin}[c]) \left(a \operatorname{Sin}\left[\frac{d x}{2}\right] - b \operatorname{Sin}\left[c + \frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2 - b^2\right) (\operatorname{Cos}[c] - i \operatorname{Sin}[c])^2}}\right]\right.$$

$$\left.\left. \operatorname{Cos}[c + d x] (\operatorname{Cos}[c] - i \operatorname{Sin}[c])\right) \Big/ \left(\left(a^2 - b^2\right)^2 \sqrt{\left(-a^2 + b^2\right) (\operatorname{Cos}[c] - i \operatorname{Sin}[c])^2}\right) + \right.$$

$$\frac{1}{\left(a^2 - b^2\right)^2 (a + b \operatorname{Cos}[c + d x])^2} a \operatorname{Sec}[c] \left(-4 a b \left(-11 a^2 A b^2 + 6 A b^4 + a^4 (2 A - 3 C)\right) \operatorname{Sin}[c] + \right.$$

$$2 \left(-3 a^2 A b^4 + 6 A b^6 + a^6 (4 A - 3 C) - a^4 b^2 (13 A + 3 C)\right) \operatorname{Sin}[d x] + 12 a^4 A b^2 \operatorname{Sin}[2 c + d x] + 3 a^2 A b^4 \operatorname{Sin}[2 c + d x] -$$
$$6 A b^6 \operatorname{Sin}[2 c + d x] + 6 a^6 C \operatorname{Sin}[2 c + d x] + 3 a^4 b^2 C \operatorname{Sin}[2 c + d x] + 8 a^5 A b \operatorname{Sin}[c + 2 d x] -$$
$$38 a^3 A b^3 \operatorname{Sin}[c + 2 d x] + 21 a A b^5 \operatorname{Sin}[c + 2 d x] - 10 a^5 b C \operatorname{Sin}[c + 2 d x] + a^3 b^3 C \operatorname{Sin}[c + 2 d x] +$$
$$6 a^3 A b^3 \operatorname{Sin}[3 c + 2 d x] - 3 a A b^5 \operatorname{Sin}[3 c + 2 d x] + 2 a^5 b C \operatorname{Sin}[3 c + 2 d x] + a^3 b^3 C \operatorname{Sin}[3 c + 2 d x] +$$

$$\left.\left. 2 a^4 A b^2 \operatorname{Sin}[2 c + 3 d x] - 11 a^2 A b^4 \operatorname{Sin}[2 c + 3 d x] + 6 A b^6 \operatorname{Sin}[2 c + 3 d x] - 3 a^4 b^2 C \operatorname{Sin}[2 c + 3 d x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A + C \operatorname{Cos}[c + d x]^2\right) \operatorname{Sec}[c + d x]^3}{(a + b \operatorname{Cos}[c + d x])^3}, x, 7, 0\right\}$$

$$-\frac{b \left(20 a^4 A b^2 - 29 a^2 A b^4 + 12 A b^6 + 6 a^6 C - 5 a^4 b^2 C + 2 a^2 b^4 C\right) \operatorname{ArcTan}\left[\frac{(a-b) \operatorname{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^5 \left(a^2 - b^2\right)^{5/2} d} +$$

$$\frac{\left(a^2 A + 12 A b^2 + 2 a^2 C\right) \operatorname{ArcTanh}[\operatorname{Sin}[c + d x]]}{2 a^5 d} - \frac{b \left(6 a^4 A - 21 a^2 A b^2 + 12 A b^4 - 5 a^4 C + 2 a^2 b^2 C\right) \operatorname{Tan}[c + d x]}{2 a^4 \left(a^2 - b^2\right)^2 d} +$$

$$\frac{\left(a^4 A - 10 a^2 A b^2 + 6 A b^4 - 4 a^4 C + a^2 b^2 C\right) \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 a^3 \left(a^2 - b^2\right)^2 d} +$$

$$\frac{\left(A b^2 + a^2 C\right) \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 a \left(a^2 - b^2\right) d (a + b \operatorname{Cos}[c + d x])^2} + \frac{\left(7 a^2 A b^2 - 4 A b^4 + 3 a^4 C\right) \operatorname{Sec}[c + d x] \operatorname{Tan}[c + d x]}{2 a^2 \left(a^2 - b^2\right)^2 d (a + b \operatorname{Cos}[c + d x])}$$

$$\frac{\left(-a^2 A-12 A b^2-2 a^2 C\right) \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+A \text{Sec}[c+d x]^2\right)}{a^5 d (2 A+C+C \text{Cos}[2 c+2 d x])}+$$

$$\frac{\left(a^2 A+12 A b^2+2 a^2 C\right) \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+A \text{Sec}[c+d x]^2\right)}{a^5 d (2 A+C+C \text{Cos}[2 c+2 d x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^2 (2 A+C+C \text{Cos}[2 c+2 d x])} \left(20 a^4 A b^2-29 a^2 A b^4+12 A b^6+6 a^6 C-5 a^4 b^2 C+2 a^2 b^4 C\right) \text{Cos}[c+d x]^2$$

$$\left(C+A \text{Sec}[c+d x]^2\right) \left(\left(2 i b \text{ArcTan}\left[\text{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\text{Cos}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}-\right.\right.\right.$$

$$\left.\left.\frac{i \text{Sin}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}\right) \left(-i a \text{Sin}\left[\frac{d x}{2}\right]+i b \text{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \text{Cos}[c]\Bigg) \Big/$$

$$\left(a^5 d \sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}\right)+$$

$$\left(2 b \text{ArcTan}\left[\text{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\text{Cos}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}-\right.\right.$$

$$\left.\left.\frac{i \text{Sin}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}\right) \left(-i a \text{Sin}\left[\frac{d x}{2}\right]+i b \text{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \text{Sin}[c]\Bigg) \Big/$$

$$\left(a^5 d \sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}\right)\Bigg)+$$

$$\frac{1}{8 a^4 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2 (2 A+C+C \text{Cos}[2 c+2 d x])}$$

$$\text{Sec}[c] \left(C+A \text{Sec}[c+d x]^2\right) \Big(24 a^6 A b \text{Sin}[c]-66 a^4 A b^3 \text{Sin}[c]-15 a^2 A b^5 \text{Sin}[c]+36 A b^7 \text{Sin}[c]-20 a^6 b C \text{Sin}[c]-7 a^4 b^3 C \text{Sin}[c]+$$
$$6 a^2 b^5 C \text{Sin}[c]+4 a^7 A \text{Sin}[d x]-55 a^5 A b^2 \text{Sin}[d x]+162 a^3 A b^4 \text{Sin}[d x]-90 a A b^6 \text{Sin}[d x]+$$
$$36 a^5 b^2 C \text{Sin}[d x]-15 a^3 b^4 C \text{Sin}[d x]+4 a^7 A \text{Sin}[2 c+d x]+17 a^5 A b^2 \text{Sin}[2 c+d x]-90 a^3 A b^4 \text{Sin}[2 c+d x]+$$
$$54 a A b^6 \text{Sin}[2 c+d x]-24 a^5 b^2 C \text{Sin}[2 c+d x]+9 a^3 b^4 C \text{Sin}[2 c+d x]-20 a^6 A b \text{Sin}[c+2 d x]+$$
$$40 a^4 A b^3 \text{Sin}[c+2 d x]+31 a^2 A b^5 \text{Sin}[c+2 d x]-36 A b^7 \text{Sin}[c+2 d x]+10 a^6 b C \text{Sin}[c+2 d x]+$$
$$11 a^4 b^3 C \text{Sin}[c+2 d x]-6 a^2 b^5 C \text{Sin}[c+2 d x]+4 a^6 A b \text{Sin}[3 c+2 d x]-20 a^4 A b^3 \text{Sin}[3 c+2 d x]-$$
$$5 a^2 A b^5 \text{Sin}[3 c+2 d x]+12 A b^7 \text{Sin}[3 c+2 d x]-10 a^6 b C \text{Sin}[3 c+2 d x]-a^4 b^3 C \text{Sin}[3 c+2 d x]+$$
$$2 a^2 b^5 C \text{Sin}[3 c+2 d x]-23 a^5 A b^2 \text{Sin}[2 c+3 d x]+74 a^3 A b^4 \text{Sin}[2 c+3 d x]-42 a A b^6 \text{Sin}[2 c+3 d x]+$$
$$16 a^5 b^2 C \text{Sin}[2 c+3 d x]-7 a^3 b^4 C \text{Sin}[2 c+3 d x]+a^5 A b^2 \text{Sin}[4 c+3 d x]-10 a^3 A b^4 \text{Sin}[4 c+3 d x]+$$
$$6 a A b^6 \text{Sin}[4 c+3 d x]-4 a^5 b^2 C \text{Sin}[4 c+3 d x]+a^3 b^4 C \text{Sin}[4 c+3 d x]-6 a^4 A b^3 \text{Sin}[3 c+4 d x]+$$
$$21 a^2 A b^5 \text{Sin}[3 c+4 d x]-12 A b^7 \text{Sin}[3 c+4 d x]+5 a^4 b^3 C \text{Sin}[3 c+4 d x]-2 a^2 b^5 C \text{Sin}[3 c+4 d x]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^4 \left(A+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^4}, x, 7, 0\right\}$$

$$\frac{\left(2 A b^2+20 a^2 C+b^2 C\right) x}{2 b^6}-$$

$$\frac{a \left(2 a^6 A b^2-7 a^4 A b^4+8 a^2 A b^6-8 A b^8+20 a^8 C-69 a^6 b^2 C+84 a^4 b^4 C-40 a^2 b^6 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{b^6 \left(a^2-b^2\right)^{7/2} d}-$$

$$\frac{a \left(6 a^4 A b^2-17 a^2 A b^4+26 A b^6+60 a^6 C-167 a^4 b^2 C+146 a^2 b^4 C-24 b^6 C\right) \text{Sin}[c+d x]}{6 b^5 \left(a^2-b^2\right)^3 d}+$$

$$\frac{\left(a^4 A b^2-2 a^2 A b^4+6 A b^6+10 a^6 C-27 a^4 b^2 C+23 a^2 b^4 C-b^6 C\right) \text{Cos}[c+d x] \text{Sin}[c+d x]}{2 b^4 \left(a^2-b^2\right)^3 d}-$$

$$\frac{\left(A b^2+a^2 C\right) \text{Cos}[c+d x]^4 \text{Sin}[c+d x]}{3 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+\frac{\left(a^2 A b^2+4 A b^4-5 a^4 C+10 a^2 b^2 C\right) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{6 b^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}-$$

$$\frac{\left(2 a^4 A b^2+a^2 A b^4+12 A b^6+20 a^6 C-53 a^4 b^2 C+48 a^2 b^4 C\right) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{6 b^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$\frac{a \left(2 a^6 A b^2-7 a^4 A b^4+8 a^2 A b^6-8 A b^8+20 a^8 C-69 a^6 b^2 C+84 a^4 b^4 C-40 a^2 b^6 C\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{b^6 \left(a^2-b^2\right)^3 \sqrt{-a^2+b^2}\, d}-$$

$$\frac{1}{96 b^6 \left(-a^2+b^2\right)^3 d (a+b \text{Cos}[c+d x])^3}$$
$$\Big(96 a^9 A b^2 (c+d x)-144 a^7 A b^4 (c+d x)-144 a^5 A b^6 (c+d x)+336 a^3 A b^8 (c+d x)-144 a A b^{10} (c+d x)+$$
$$960 a^{11} C (c+d x)-1392 a^9 b^2 C (c+d x)-1512 a^7 b^4 C (c+d x)+3288 a^5 b^6 C (c+d x)-1272 a^3 b^8 C (c+d x)-$$
$$72 a b^{10} C (c+d x)+288 a^8 A b^3 (c+d x) \text{Cos}[c+d x]-792 a^6 A b^5 (c+d x) \text{Cos}[c+d x]+648 a^4 A b^7 (c+d x) \text{Cos}[c+d x]-$$
$$72 a^2 A b^9 (c+d x) \text{Cos}[c+d x]-72 A b^{11} (c+d x) \text{Cos}[c+d x]+2880 a^{10} b C (c+d x) \text{Cos}[c+d x]-$$
$$7776 a^8 b^3 C (c+d x) \text{Cos}[c+d x]+6084 a^6 b^5 C (c+d x) \text{Cos}[c+d x]-396 a^4 b^7 C (c+d x) \text{Cos}[c+d x]-$$
$$756 a^2 b^9 C (c+d x) \text{Cos}[c+d x]-36 b^{11} C (c+d x) \text{Cos}[c+d x]+144 a^7 A b^4 (c+d x) \text{Cos}[2 (c+d x)]-$$
$$432 a^5 A b^6 (c+d x) \text{Cos}[2 (c+d x)]+432 a^3 A b^8 (c+d x) \text{Cos}[2 (c+d x)]-144 a A b^{10} (c+d x) \text{Cos}[2 (c+d x)]+$$
$$1440 a^9 b^2 C (c+d x) \text{Cos}[2 (c+d x)]-4248 a^7 b^4 C (c+d x) \text{Cos}[2 (c+d x)]+4104 a^5 b^6 C (c+d x) \text{Cos}[2 (c+d x)]-$$
$$1224 a^3 b^8 C (c+d x) \text{Cos}[2 (c+d x)]-72 a b^{10} C (c+d x) \text{Cos}[2 (c+d x)]+24 a^6 A b^5 (c+d x) \text{Cos}[3 (c+d x)]-$$
$$72 a^4 A b^7 (c+d x) \text{Cos}[3 (c+d x)]+72 a^2 A b^9 (c+d x) \text{Cos}[3 (c+d x)]-24 A b^{11} (c+d x) \text{Cos}[3 (c+d x)]+$$
$$240 a^8 b^3 C (c+d x) \text{Cos}[3 (c+d x)]-708 a^6 b^5 C (c+d x) \text{Cos}[3 (c+d x)]+684 a^4 b^7 C (c+d x) \text{Cos}[3 (c+d x)]-$$
$$204 a^2 b^9 C (c+d x) \text{Cos}[3 (c+d x)]-12 b^{11} C (c+d x) \text{Cos}[3 (c+d x)]-96 a^8 A b^3 \text{Sin}[c+d x]+228 a^6 A b^5 \text{Sin}[c+d x]-$$
$$288 a^4 A b^7 \text{Sin}[c+d x]-144 a^2 A b^9 \text{Sin}[c+d x]-960 a^{10} b C \text{Sin}[c+d x]+2232 a^8 b^3 C \text{Sin}[c+d x]-$$
$$1086 a^6 b^5 C \text{Sin}[c+d x]-750 a^4 b^7 C \text{Sin}[c+d x]+270 a^2 b^9 C \text{Sin}[c+d x]-6 b^{11} C \text{Sin}[c+d x]-$$
$$120 a^7 A b^4 \text{Sin}[2 (c+d x)]+360 a^5 A b^6 \text{Sin}[2 (c+d x)]-480 a^3 A b^8 \text{Sin}[2 (c+d x)]-1200 a^9 b^2 C \text{Sin}[2 (c+d x)]+$$
$$3300 a^7 b^4 C \text{Sin}[2 (c+d x)]-2772 a^5 b^6 C \text{Sin}[2 (c+d x)]+372 a^3 b^8 C \text{Sin}[2 (c+d x)]+60 a b^{10} C \text{Sin}[2 (c+d x)]-$$
$$44 a^6 A b^5 \text{Sin}[3 (c+d x)]+128 a^4 A b^7 \text{Sin}[3 (c+d x)]-144 a^2 A b^9 \text{Sin}[3 (c+d x)]-440 a^8 b^3 C \text{Sin}[3 (c+d x)]+$$
$$1253 a^6 b^5 C \text{Sin}[3 (c+d x)]-1143 a^4 b^7 C \text{Sin}[3 (c+d x)]+279 a^2 b^9 C \text{Sin}[3 (c+d x)]-9 b^{11} C \text{Sin}[3 (c+d x)]-$$
$$30 a^7 b^4 C \text{Sin}[4 (c+d x)]+90 a^5 b^6 C \text{Sin}[4 (c+d x)]-90 a^3 b^8 C \text{Sin}[4 (c+d x)]+30 a b^{10} C \text{Sin}[4 (c+d x)]+$$
$$3 a^6 b^5 C \text{Sin}[5 (c+d x)]-9 a^4 b^7 C \text{Sin}[5 (c+d x)]+9 a^2 b^9 C \text{Sin}[5 (c+d x)]-3 b^{11} C \text{Sin}[5 (c+d x)]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^3 \left(A+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^4}, x, 6, 0\right\}$$

$$-\frac{4\,a\,C\,x}{b^5}-\frac{\left(3\,a^2\,A\,b^6+2\,A\,b^8-8\,a^8\,C+28\,a^6\,b^2\,C-35\,a^4\,b^4\,C+20\,a^2\,b^6\,C\right)\,\text{ArcTan}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{b^5\,\left(a^2-b^2\right)^{7/2}\,d}+$$

$$\frac{\left(4\,a^2\,A\,b^4+11\,A\,b^6+24\,a^6\,C-68\,a^4\,b^2\,C+65\,a^2\,b^4\,C-6\,b^6\,C\right)\,\text{Sin}[c+d\,x]}{6\,b^4\,\left(a^2-b^2\right)^3\,d}-$$

$$\frac{\left(A\,b^2+a^2\,C\right)\,\text{Cos}[c+d\,x]^3\,\text{Sin}[c+d\,x]}{3\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^3}+\frac{\left(2\,a^2\,A\,b^2+3\,A\,b^4-4\,a^4\,C+9\,a^2\,b^2\,C\right)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{6\,b^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-$$

$$\frac{\left(3\,a^2\,A\,b^4+2\,A\,b^6+4\,a^6\,C-11\,a^4\,b^2\,C+12\,a^2\,b^4\,C\right)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{2\,b^3\,\left(a^2-b^2\right)^3\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{24\,b^5\,d}\left(\frac{24\,\left(-2\,A\,b^8+8\,a^8\,C-28\,a^6\,b^2\,C+35\,a^4\,b^4\,C-a^2\,b^6\,(3\,A+20\,C)\right)\,\text{ArcTanh}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}+\right.$$

$$\frac{1}{\left(a^2-b^2\right)^3\,(a+b\,\text{Cos}[c+d\,x])^3}\,\left(-96\,a^{10}\,c\,C+144\,a^8\,b^2\,c\,C+144\,a^6\,b^4\,c\,C-336\,a^4\,b^6\,c\,C+144\,a^2\,b^8\,c\,C-96\,a^{10}\,C\,d\,x+\right.$$

$$144\,a^8\,b^2\,C\,d\,x+144\,a^6\,b^4\,C\,d\,x-336\,a^4\,b^6\,C\,d\,x+144\,a^2\,b^8\,C\,d\,x-72\,a\,b\,\left(a^2-b^2\right)^3\,\left(4\,a^2+b^2\right)\,C\,(c+d\,x)\,\text{Cos}[c+d\,x]-$$

$$144\,a^2\,b^2\,\left(a^2-b^2\right)^3\,C\,(c+d\,x)\,\text{Cos}[2\,(c+d\,x)]-24\,a^7\,b^3\,c\,C\,\text{Cos}[3\,(c+d\,x)]+72\,a^5\,b^5\,c\,C\,\text{Cos}[3\,(c+d\,x)]-$$

$$72\,a^3\,b^7\,c\,C\,\text{Cos}[3\,(c+d\,x)]+24\,a\,b^9\,c\,C\,\text{Cos}[3\,(c+d\,x)]-24\,a^7\,b^3\,C\,d\,x\,\text{Cos}[3\,(c+d\,x)]+72\,a^5\,b^5\,C\,d\,x\,\text{Cos}[3\,(c+d\,x)]-$$

$$72\,a^3\,b^7\,C\,d\,x\,\text{Cos}[3\,(c+d\,x)]+24\,a\,b^9\,C\,d\,x\,\text{Cos}[3\,(c+d\,x)]+18\,a^5\,A\,b^5\,\text{Sin}[c+d\,x]+39\,a^3\,A\,b^7\,\text{Sin}[c+d\,x]+$$

$$18\,a\,A\,b^9\,\text{Sin}[c+d\,x]+96\,a^9\,b\,C\,\text{Sin}[c+d\,x]-228\,a^7\,b^3\,C\,\text{Sin}[c+d\,x]+135\,a^5\,b^5\,C\,\text{Sin}[c+d\,x]+$$

$$90\,a^3\,b^7\,C\,\text{Sin}[c+d\,x]-18\,a\,b^9\,C\,\text{Sin}[c+d\,x]+6\,a^4\,A\,b^6\,\text{Sin}[2\,(c+d\,x)]+54\,a^2\,A\,b^8\,\text{Sin}[2\,(c+d\,x)]+$$

$$120\,a^8\,b^2\,C\,\text{Sin}[2\,(c+d\,x)]-336\,a^6\,b^4\,C\,\text{Sin}[2\,(c+d\,x)]+300\,a^4\,b^6\,C\,\text{Sin}[2\,(c+d\,x)]-18\,a^2\,b^8\,C\,\text{Sin}[2\,(c+d\,x)]-$$

$$6\,b^{10}\,C\,\text{Sin}[2\,(c+d\,x)]+2\,a^5\,A\,b^5\,\text{Sin}[3\,(c+d\,x)]-5\,a^3\,A\,b^7\,\text{Sin}[3\,(c+d\,x)]+18\,a\,A\,b^9\,\text{Sin}[3\,(c+d\,x)]+$$

$$44\,a^7\,b^3\,C\,\text{Sin}[3\,(c+d\,x)]-125\,a^5\,b^5\,C\,\text{Sin}[3\,(c+d\,x)]+114\,a^3\,b^7\,C\,\text{Sin}[3\,(c+d\,x)]-18\,a\,b^9\,C\,\text{Sin}[3\,(c+d\,x)]+$$

$$\left.\left.3\,a^6\,b^4\,C\,\text{Sin}[4\,(c+d\,x)]-9\,a^4\,b^6\,C\,\text{Sin}[4\,(c+d\,x)]+9\,a^2\,b^8\,C\,\text{Sin}[4\,(c+d\,x)]-3\,b^{10}\,C\,\text{Sin}[4\,(c+d\,x)]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^2\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^4},\,x,\,5,\,0\right\}$$

$$\frac{C\,x}{b^4}+\frac{a\,\left(a^2\,A\,b^4+4\,A\,b^6-2\,a^6\,C+7\,a^4\,b^2\,C-8\,a^2\,b^4\,C+8\,b^6\,C\right)\,\text{ArcTan}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{b^4\,\left(a^2-b^2\right)^{7/2}\,d}-\frac{\left(A\,b^2+a^2\,C\right)\,\text{Cos}[c+d\,x]^2\,\text{Sin}[c+d\,x]}{3\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^3}+$$

$$\frac{\left(3\,a^2\,A\,b^2+2\,A\,b^4-3\,a^4\,C+8\,a^2\,b^2\,C\right)\,\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{6\,b^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{\left(13\,a^2\,A\,b^4+2\,A\,b^6+6\,a^6\,C-17\,a^4\,b^2\,C+26\,a^2\,b^4\,C\right)\,\text{Sin}[c+d\,x]}{6\,b^3\,\left(a^2-b^2\right)^3\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$-\frac{1}{24 b^4 d}\left(\frac{24 a \left(-a^2 b^4 (A-8 C)+2 a^6 C-7 a^4 b^2 C-4 b^6 (A+2 C)\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}+\right.$$

$$\frac{1}{\left(a^2-b^2\right)^3 (a+b \text{Cos}[c+d x])^3}\left(-24 a^9 c C+36 a^7 b^2 c C+36 a^5 b^4 c C-84 a^3 b^6 c C+36 a b^8 c C-24 a^9 C d x+\right.$$

$$36 a^7 b^2 C d x+36 a^5 b^4 C d x-84 a^3 b^6 C d x+36 a b^8 C d x+18 b \left(-a^2+b^2\right)^3 \left(4 a^2+b^2\right) C (c+d x) \text{Cos}[c+d x]-$$

$$36 a b^2 \left(a^2-b^2\right)^3 C (c+d x) \text{Cos}[2 (c+d x)]-6 a^6 b^3 c C \text{Cos}[3 (c+d x)]+18 a^4 b^5 c C \text{Cos}[3 (c+d x)]-$$

$$18 a^2 b^7 c C \text{Cos}[3 (c+d x)]+6 b^9 c C \text{Cos}[3 (c+d x)]-6 a^6 b^3 C d x \text{Cos}[3 (c+d x)]+18 a^4 b^5 C d x \text{Cos}[3 (c+d x)]-$$

$$18 a^2 b^7 C d x \text{Cos}[3 (c+d x)]+6 b^9 C d x \text{Cos}[3 (c+d x)]+51 a^4 A b^5 \text{Sin}[c+d x]+18 a^2 A b^7 \text{Sin}[c+d x]+$$

$$6 A b^9 \text{Sin}[c+d x]+24 a^8 b C \text{Sin}[c+d x]-57 a^6 b^3 C \text{Sin}[c+d x]+72 a^4 b^5 C \text{Sin}[c+d x]+36 a^2 b^7 C \text{Sin}[c+d x]-$$

$$6 a^5 A b^4 \text{Sin}[2 (c+d x)]+54 a^3 A b^6 \text{Sin}[2 (c+d x)]+12 a A b^8 \text{Sin}[2 (c+d x)]+30 a^7 b^2 C \text{Sin}[2 (c+d x)]-$$

$$90 a^5 b^4 C \text{Sin}[2 (c+d x)]+120 a^3 b^6 C \text{Sin}[2 (c+d x)]-a^4 A b^5 \text{Sin}[3 (c+d x)]+10 a^2 A b^7 \text{Sin}[3 (c+d x)]+$$

$$\left.\left.6 A b^9 \text{Sin}[3 (c+d x)]+11 a^6 b^3 C \text{Sin}[3 (c+d x)]-32 a^4 b^5 C \text{Sin}[3 (c+d x)]+36 a^2 b^7 C \text{Sin}[3 (c+d x)]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{(a+b \text{Cos}[c+d x])^4}, x, 6, 0\right\}$$

$$-\frac{b \left(8 a^6 A-8 a^4 A b^2+7 a^2 A b^4-2 A b^6+4 a^6 C+a^4 b^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4 \left(a^2-b^2\right)^{7/2} d}+$$

$$\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^4 d}+\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+$$

$$\frac{\left(8 a^2 A b^2-3 A b^4+2 a^4 C+3 a^2 b^2 C\right) \text{Sin}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}+\frac{\left(26 a^4 A b^2-17 a^2 A b^4+6 A b^6+2 a^6 C+13 a^4 b^2 C\right) \text{Sin}[c+d x]}{6 a^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{2 A \operatorname{Cos}[c+d x] \operatorname{Log}\left[\operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] (C \operatorname{Cos}[c+d x]+A \operatorname{Sec}[c+d x])}{a^4 d (2 A+C+C \operatorname{Cos}[2 c+2 d x])}+$$

$$\frac{2 A \operatorname{Cos}[c+d x] \operatorname{Log}\left[\operatorname{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\operatorname{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] (C \operatorname{Cos}[c+d x]+A \operatorname{Sec}[c+d x])}{a^4 d (2 A+C+C \operatorname{Cos}[2 c+2 d x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^3 (2 A+C+C \operatorname{Cos}[2 c+2 d x])} \left(8 a^6 A-8 a^4 A b^2+7 a^2 A b^4-2 A b^6+4 a^6 C+a^4 b^2 C\right) \operatorname{Cos}[c+d x]$$

$$(C \operatorname{Cos}[c+d x]+A \operatorname{Sec}[c+d x]) \left(\left(2 i b \operatorname{ArcTan}\left[\operatorname{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\operatorname{Cos}[c]}{\sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}}-\right.\right.\right.$$

$$\left.\left.\left.\frac{i \operatorname{Sin}[c]}{\sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}}\right) \left(-i a \operatorname{Sin}\left[\frac{d x}{2}\right]+i b \operatorname{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \operatorname{Cos}[c]\right) \Big/$$

$$\left(a^4 d \sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}\right)+$$

$$\left(2 b \operatorname{ArcTan}\left[\operatorname{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\operatorname{Cos}[c]}{\sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}}-\right.\right.$$

$$\left.\left.\frac{i \operatorname{Sin}[c]}{\sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}}\right) \left(-i a \operatorname{Sin}\left[\frac{d x}{2}\right]+i b \operatorname{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \operatorname{Sin}[c]\right) \Big/$$

$$\left(a^4 d \sqrt{-a^2 \operatorname{Cos}[2 c]+b^2 \operatorname{Cos}[2 c]+i a^2 \operatorname{Sin}[2 c]-i b^2 \operatorname{Sin}[2 c]}\right)\Bigg)+$$

$$\frac{1}{12 a^3 b \left(a^2-b^2\right)^3 d (a+b \operatorname{Cos}[c+d x])^3 (2 A+C+C \operatorname{Cos}[2 c+2 d x])}$$

$$\operatorname{Cos}[c+d x]$$
$$\operatorname{Sec}[c] (C \operatorname{Cos}[c+d x]+A \operatorname{Sec}[c+d x])$$
$$\left(-104 a^7 A b^2 \operatorname{Sin}[c]-88 a^5 A b^4 \operatorname{Sin}[c]+78 a^3 A b^6 \operatorname{Sin}[c]-36 a A b^8 \operatorname{Sin}[c]-8 a^9 C \operatorname{Sin}[c]-64 a^7 b^2 C \operatorname{Sin}[c]-\right.$$
$$78 a^5 b^4 C \operatorname{Sin}[c]+228 a^6 A b^3 \operatorname{Sin}[d x]-114 a^4 A b^5 \operatorname{Sin}[d x]+24 a^2 A b^7 \operatorname{Sin}[d x]+12 A b^9 \operatorname{Sin}[d x]+$$
$$24 a^8 b C \operatorname{Sin}[d x]+102 a^6 b^3 C \operatorname{Sin}[d x]+24 a^4 b^5 C \operatorname{Sin}[d x]-84 a^6 A b^3 \operatorname{Sin}[2 c+d x]+12 a^4 A b^5 \operatorname{Sin}[2 c+d x]+$$
$$3 a^2 A b^7 \operatorname{Sin}[2 c+d x]-6 A b^9 \operatorname{Sin}[2 c+d x]-60 a^6 b^3 C \operatorname{Sin}[2 c+d x]-15 a^4 b^5 C \operatorname{Sin}[2 c+d x]+$$
$$138 a^5 A b^4 \operatorname{Sin}[c+2 d x]-96 a^3 A b^6 \operatorname{Sin}[c+2 d x]+33 a A b^8 \operatorname{Sin}[c+2 d x]+12 a^7 b^2 C \operatorname{Sin}[c+2 d x]+$$
$$66 a^5 b^4 C \operatorname{Sin}[c+2 d x]-3 a^3 b^6 C \operatorname{Sin}[c+2 d x]-18 a^5 A b^4 \operatorname{Sin}[3 c+2 d x]+6 a^3 A b^6 \operatorname{Sin}[3 c+2 d x]-$$
$$3 a A b^8 \operatorname{Sin}[3 c+2 d x]-12 a^5 b^4 C \operatorname{Sin}[3 c+2 d x]-3 a^3 b^6 C \operatorname{Sin}[3 c+2 d x]+26 a^4 A b^5 \operatorname{Sin}[2 c+3 d x]-$$
$$\left.17 a^2 A b^7 \operatorname{Sin}[2 c+3 d x]+6 A b^9 \operatorname{Sin}[2 c+3 d x]+2 a^6 b^3 C \operatorname{Sin}[2 c+3 d x]+13 a^4 b^5 C \operatorname{Sin}[2 c+3 d x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^2}{(a+b \operatorname{Cos}[c+d x])^4}, x, 7, 0\right\}$$

$$\frac{\left(20 a^6 A b^2-35 a^4 A b^4+28 a^2 A b^6-8 A b^8+2 a^8 C+3 a^6 b^2 C\right) \operatorname{ArcTan}\left[\frac{(a-b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^5 \left(a^2-b^2\right)^{7/2} d}-\frac{4 A b \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{a^5 d}+$$

$$\frac{\left(6 a^6 A-65 a^4 A b^2+68 a^2 A b^4-24 A b^6-11 a^6 C-4 a^4 b^2 C\right) \operatorname{Tan}[c+d x]}{6 a^4 \left(a^2-b^2\right)^3 d}+\frac{\left(A b^2+a^2 C\right) \operatorname{Tan}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \operatorname{Cos}[c+d x])^3}+$$

$$\frac{\left(9 a^2 A b^2-4 A b^4+3 a^4 C+2 a^2 b^2 C\right) \operatorname{Tan}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \operatorname{Cos}[c+d x])^2}+\frac{\left(12 a^4 A b^2-11 a^2 A b^4+4 A b^6+2 a^6 C+3 a^4 b^2 C\right) \operatorname{Tan}[c+d x]}{2 a^3 \left(a^2-b^2\right)^3 d (a+b \operatorname{Cos}[c+d x])}$$

$$\frac{8\,A\,b\,\text{Cos}[c+d\,x]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\text{Sec}[c+d\,x]^2\right)}{a^5\,d\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}-$$

$$\frac{8\,A\,b\,\text{Cos}[c+d\,x]^2\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+A\,\text{Sec}[c+d\,x]^2\right)}{a^5\,d\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^3\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}\left(20\,a^6\,A\,b^2-35\,a^4\,A\,b^4+28\,a^2\,A\,b^6-8\,A\,b^8+2\,a^8\,C+3\,a^6\,b^2\,C\right)\text{Cos}[c+d\,x]^2$$

$$\left(C+A\,\text{Sec}[c+d\,x]^2\right)\left(-\left(2\,i\,\text{ArcTan}\left[\text{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\text{Cos}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}-\right.\right.\right.\right.$$

$$\left.\left.\left.\frac{i\,\text{Sin}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}\right)\left(-i\,a\,\text{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\text{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\text{Cos}[c]\right)\Big/$$

$$\left(a^5\,d\,\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}\right)-$$

$$\left(2\,\text{ArcTan}\left[\text{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\text{Cos}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}-\right.\right.\right.$$

$$\left.\left.\left.\frac{i\,\text{Sin}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}\right)\left(-i\,a\,\text{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\text{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\text{Sin}[c]\right)\Big/$$

$$\left.\left(a^5\,d\,\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}\right)\right)+$$

$$\frac{1}{24\,a^4\,\left(a^2-b^2\right)^3\,d\,(a+b\,\text{Cos}[c+d\,x])^3\,(2\,A+C+C\,\text{Cos}[2\,c+2\,d\,x])}$$

$$\text{Cos}[c+d\,x]$$
$$\text{Sec}[c]$$
$$\left(C+A\,\text{Sec}[c+d\,x]^2\right)$$
$$\left(-72\,a^8\,A\,b\,\text{Sin}[c]+762\,a^6\,A\,b^3\,\text{Sin}[c]-621\,a^4\,A\,b^5\,\text{Sin}[c]+84\,a^2\,A\,b^7\,\text{Sin}[c]+72\,A\,b^9\,\text{Sin}[c]+132\,a^8\,b\,C\,\text{Sin}[c]+\right.$$
$$81\,a^6\,b^3\,C\,\text{Sin}[c]+12\,a^4\,b^5\,C\,\text{Sin}[c]+48\,a^9\,A\,\text{Sin}[d\,x]-260\,a^7\,A\,b^2\,\text{Sin}[d\,x]-400\,a^5\,A\,b^4\,\text{Sin}[d\,x]+663\,a^3\,A\,b^6\,\text{Sin}[d\,x]-$$
$$276\,a\,A\,b^8\,\text{Sin}[d\,x]-44\,a^9\,C\,\text{Sin}[d\,x]-142\,a^7\,b^2\,C\,\text{Sin}[d\,x]-39\,a^5\,b^4\,C\,\text{Sin}[d\,x]+152\,a^7\,A\,b^2\,\text{Sin}[2\,c+d\,x]+$$
$$226\,a^5\,A\,b^4\,\text{Sin}[2\,c+d\,x]-369\,a^3\,A\,b^6\,\text{Sin}[2\,c+d\,x]+156\,a\,A\,b^8\,\text{Sin}[2\,c+d\,x]+44\,a^9\,C\,\text{Sin}[2\,c+d\,x]+$$
$$88\,a^7\,b^2\,C\,\text{Sin}[2\,c+d\,x]+33\,a^5\,b^4\,C\,\text{Sin}[2\,c+d\,x]+72\,a^8\,A\,b\,\text{Sin}[c+2\,d\,x]-600\,a^6\,A\,b^3\,\text{Sin}[c+2\,d\,x]+$$
$$463\,a^4\,A\,b^5\,\text{Sin}[c+2\,d\,x]-28\,a^2\,A\,b^7\,\text{Sin}[c+2\,d\,x]-72\,A\,b^9\,\text{Sin}[c+2\,d\,x]-102\,a^8\,b\,C\,\text{Sin}[c+2\,d\,x]-47\,a^6\,b^3\,C\,\text{Sin}[c+2\,d\,x]-$$
$$16\,a^4\,b^5\,C\,\text{Sin}[c+2\,d\,x]+156\,a^6\,A\,b^3\,\text{Sin}[3\,c+2\,d\,x]-93\,a^4\,A\,b^5\,\text{Sin}[3\,c+2\,d\,x]-12\,a^2\,A\,b^7\,\text{Sin}[3\,c+2\,d\,x]+$$
$$24\,A\,b^9\,\text{Sin}[3\,c+2\,d\,x]+30\,a^8\,b\,C\,\text{Sin}[3\,c+2\,d\,x]+45\,a^6\,b^3\,C\,\text{Sin}[3\,c+2\,d\,x]+36\,a^7\,A\,b^2\,\text{Sin}[2\,c+3\,d\,x]-$$
$$354\,a^5\,A\,b^4\,\text{Sin}[2\,c+3\,d\,x]+375\,a^3\,A\,b^6\,\text{Sin}[2\,c+3\,d\,x]-132\,a\,A\,b^8\,\text{Sin}[2\,c+3\,d\,x]-60\,a^7\,b^2\,C\,\text{Sin}[2\,c+3\,d\,x]-$$
$$15\,a^5\,b^4\,C\,\text{Sin}[2\,c+3\,d\,x]+36\,a^5\,A\,b^4\,\text{Sin}[4\,c+3\,d\,x]-33\,a^3\,A\,b^6\,\text{Sin}[4\,c+3\,d\,x]+12\,a\,A\,b^8\,\text{Sin}[4\,c+3\,d\,x]+$$
$$6\,a^7\,b^2\,C\,\text{Sin}[4\,c+3\,d\,x]+9\,a^5\,b^4\,C\,\text{Sin}[4\,c+3\,d\,x]+6\,a^6\,A\,b^3\,\text{Sin}[3\,c+4\,d\,x]-65\,a^4\,A\,b^5\,\text{Sin}[3\,c+4\,d\,x]+$$
$$\left.68\,a^2\,A\,b^7\,\text{Sin}[3\,c+4\,d\,x]-24\,A\,b^9\,\text{Sin}[3\,c+4\,d\,x]-11\,a^6\,b^3\,C\,\text{Sin}[3\,c+4\,d\,x]-4\,a^4\,b^5\,C\,\text{Sin}[3\,c+4\,d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3}{(a+b\,\text{Cos}[c+d\,x])^4},\ x,\ 8,\ 0\right\}$$

$$-\frac{b\left(40 a^6 A b^2-84 a^4 A b^4+69 a^2 A b^6-20 A b^8+8 a^8 C-8 a^6 b^2 C+7 a^4 b^4 C-2 a^2 b^6 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^6 \left(a^2-b^2\right)^{7/2} d}+$$

$$\frac{\left(a^2 A+20 A b^2+2 a^2 C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 a^6 d}-$$

$$\frac{b\left(24 a^6 A-146 a^4 A b^2+167 a^2 A b^4-60 A b^6-26 a^6 C+17 a^4 b^2 C-6 a^2 b^4 C\right) \text{Tan}[c+d x]}{6 a^5 \left(a^2-b^2\right)^3 d}+$$

$$\frac{\left(a^6 A-23 a^4 A b^2+27 a^2 A b^4-10 A b^6-6 a^6 C+2 a^4 b^2 C-a^2 b^4 C\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 a^4 \left(a^2-b^2\right)^3 d}+$$

$$\frac{\left(A b^2+a^2 C\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+\frac{\left(10 a^2 A b^2-5 A b^4+4 a^4 C+a^2 b^2 C\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}+$$

$$\frac{\left(48 a^4 A b^2-53 a^2 A b^4+20 A b^6+12 a^6 C+a^4 b^2 C+2 a^2 b^4 C\right) \text{Sec}[c+d x] \text{Tan}[c+d x]}{6 a^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$\frac{\left(-a^2 A-20 A b^2-2 a^2 C\right) \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+A \text{Sec}[c+d x]^2\right)}{a^6 d (2 A+C+C \text{Cos}[2 c+2 d x])}+$$

$$\frac{\left(a^2 A+20 A b^2+2 a^2 C\right) \text{Cos}[c+d x]^2 \text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d x}{2}\right]\right] \left(C+A \text{Sec}[c+d x]^2\right)}{a^6 d (2 A+C+C \text{Cos}[2 c+2 d x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^3 (2 A+C+C \text{Cos}[2 c+2 d x])} \left(40 a^6 A b^2-84 a^4 A b^4+69 a^2 A b^6-20 A b^8+8 a^8 C-8 a^6 b^2 C+7 a^4 b^4 C-2 a^2 b^6 C\right)$$

$$\text{Cos}[c+d x]^2 \left(C+A \text{Sec}[c+d x]^2\right) \left(\left(2 i b \text{ArcTan}\left[\text{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\text{Cos}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}-\frac{i \text{Sin}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}\right) \left(-i a \text{Sin}\left[\frac{d x}{2}\right]+i b \text{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \text{Cos}[c]\right) \Big/ \left(a^6 d \sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}\right)+ \left(2 b \text{ArcTan}\left[\text{Sec}\left[\frac{d x}{2}\right]\right] \left(\frac{\text{Cos}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}-\frac{i \text{Sin}[c]}{\sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}}\right) \left(-i a \text{Sin}\left[\frac{d x}{2}\right]+i b \text{Sin}\left[c+\frac{d x}{2}\right]\right)\right] \text{Sin}[c]\right) \Big/ \left(a^6 d \sqrt{-a^2 \text{Cos}[2 c]+b^2 \text{Cos}[2 c]+i a^2 \text{Sin}[2 c]-i b^2 \text{Sin}[2 c]}\right)\right)+$$

$$\frac{1}{48 a^5 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])^3 (2 A+C+C \text{Cos}[2 c+2 d x])}$$

$$\text{Sec}[c] \left(C+A \text{Sec}[c+d x]^2\right) \Big(192 a^9 A b \text{Sin}[c]-736 a^7 A b^3 \text{Sin}[c]-1292 a^5 A b^5 \text{Sin}[c]+2526 a^3 A b^7 \text{Sin}[c]-1080 a A b^9 \text{Sin}[c]-208 a^9 b C \text{Sin}[c]-332 a^7 b^3 C \text{Sin}[c]+258 a^5 b^5 C \text{Sin}[c]-108 a^3 b^7 C \text{Sin}[c]+24 a^{10} A \text{Sin}[d x]-630 a^8 A b^2 \text{Sin}[d x]+3114 a^6 A b^4 \text{Sin}[d x]-2776 a^4 A b^6 \text{Sin}[d x]+298 a^2 A b^8 \text{Sin}[d x]+360 A b^{10} \text{Sin}[d x]+540 a^8 b^2 C \text{Sin}[d x]-214 a^6 b^4 C \text{Sin}[d x]+28 a^4 b^6 C \text{Sin}[d x]+36 a^2 b^8 C \text{Sin}[d x]+24 a^{10} A \text{Sin}[2 c+d x]+234 a^8 A b^2 \text{Sin}[2 c+d x]-1902 a^6 A b^4 \text{Sin}[2 c+d x]+1776 a^4 A b^6 \text{Sin}[2 c+d x]-192 a^2 A b^8 \text{Sin}[2 c+d x]-240 A b^{10} \text{Sin}[2 c+d x]-396 a^8 b^2 C \text{Sin}[2 c+d x]+138 a^6 b^4 C \text{Sin}[2 c+d x]-18 a^4 b^6 C \text{Sin}[2 c+d x]-24 a^2 b^8 C \text{Sin}[2 c+d x]-156 a^9 A b \text{Sin}[c+2 d x]+338 a^7 A b^3 \text{Sin}[c+2 d x]+1642 a^5 A b^5 \text{Sin}[c+2 d x]-2544 a^3 A b^7 \text{Sin}[c+2 d x]+1020 a A b^9 \text{Sin}[c+2 d x]+104 a^9 b C \text{Sin}[c+2 d x]+364 a^7 b^3 C \text{Sin}[c+2 d x]-270 a^5 b^5 C \text{Sin}[c+2 d x]+102 a^3 b^7 C \text{Sin}[c+2 d x]+36 a^9 A b \text{Sin}[3 c+2 d x]-254 a^7 A b^3 \text{Sin}[3 c+2 d x]-526 a^5 A b^5 \text{Sin}[3 c+2 d x]+984 a^3 A b^7 \text{Sin}[3 c+2 d x]-420 a A b^9 \text{Sin}[3 c+2 d x]-104 a^9 b C \text{Sin}[3 c+2 d x]-124 a^7 b^3 C \text{Sin}[3 c+2 d x]+90 a^5 b^5 C \text{Sin}[3 c+2 d x]-42 a^3 b^7 C \text{Sin}[3 c+2 d x]-270 a^8 A b^2 \text{Sin}[2 c+3 d x]+1338 a^6 A b^4 \text{Sin}[2 c+3 d x]-1040 a^4 A b^6 \text{Sin}[2 c+3 d x]-88 a^2 A b^8 \text{Sin}[2 c+3 d x]+240 A b^{10} \text{Sin}[2 c+3 d x]+228 a^8 b^2 C \text{Sin}[2 c+3 d x]-62 a^6 b^4 C \text{Sin}[2 c+3 d x]-10 a^4 b^6 C \text{Sin}[2 c+3 d x]+24 a^2 b^8 C \text{Sin}[2 c+3 d x]+18 a^8 A b^2 \text{Sin}[4 c+3 d x]-294 a^6 A b^4 \text{Sin}[4 c+3 d x]+234 a^4 A b^6 \text{Sin}[4 c+3 d x]+27 a^2 A b^8 \text{Sin}[4 c+3 d x]-60 A b^{10} \text{Sin}[4 c+3 d x]-84 a^8 b^2 C \text{Sin}[4 c+3 d x]+12 a^6 b^4 C \text{Sin}[4 c+3 d x]+3 a^4 b^6 C \text{Sin}[4 c+3 d x]-6 a^2 b^8 C \text{Sin}[4 c+3 d x]-141 a^7 A b^3 \text{Sin}[3 c+4 d x]+807 a^5 A b^5 \text{Sin}[3 c+4 d x]-921 a^3 A b^7 \text{Sin}[3 c+4 d x]+330 a A b^9 \text{Sin}[3 c+4 d x]+138 a^7 b^3 C \text{Sin}[3 c+4 d x]-96 a^5 b^5 C \text{Sin}[3 c+4 d x]+33 a^3 b^7 C \text{Sin}[3 c+4 d x]+3 a^7 A b^3 \text{Sin}[5 c+4 d x]-69 a^5 A b^5 \text{Sin}[5 c+4 d x]+81 a^3 A b^7 \text{Sin}[5 c+4 d x]-30 a A b^9 \text{Sin}[5 c+4 d x]-18 a^7 b^3 C \text{Sin}[5 c+4 d x]+6 a^5 b^5 C \text{Sin}[5 c+4 d x]-3 a^3 b^7 C \text{Sin}[5 c+4 d x]-24 a^6 A b^4 \text{Sin}[4 c+5 d x]+146 a^4 A b^6 \text{Sin}[4 c+5 d x]-167 a^2 A b^8 \text{Sin}[4 c+5 d x]+60 A b^{10} \text{Sin}[4 c+5 d x]+26 a^6 b^4 C \text{Sin}[4 c+5 d x]-17 a^4 b^6 C \text{Sin}[4 c+5 d x]+6 a^2 b^8 C \text{Sin}[4 c+5 d x]\Big)$$

Unable to integrate:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{\sqrt{a+b \text{Cos}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{2\,(a+b)\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{b\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{b\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,9,\,0\right\}$$

$$-\frac{A\,(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{(A+2\,C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{A\,b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{A\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}[c+d\,x]}{a\,d}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,10,\,0\right\}$$

$$\frac{3\,A\,b\,(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{4\,a^2\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{A\,b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{4\,a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a^2\,A+3\,A\,b^2+8\,a^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{4\,a^2\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{3\,A\,b\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}[c+d\,x]}{4\,a^2\,d}+\frac{A\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sec}[c+d\,x]\;\mathrm{Tan}[c+d\,x]}{2\,a\,d}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^3}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\,x,\,9,\,0\right\}$$

$$-\frac{2\left(A b^2+a^2 C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{a(a-b)\,b\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+\frac{2 C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{b\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{2 A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+\frac{2\left(A b^2+a^2 C\right)\mathrm{Sin}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]}{(a+b\,\mathrm{Cos}[c+d x])^{3/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]^2}{(a+b\,\mathrm{Cos}[c+d x])^{3/2}},\ x,\ 10,\ 0\right\}$$

$$-\frac{\left(a^2 A-3 A b^2-2 a^2 C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{a^2(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}-\frac{3 A b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{a^2 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{2\left(A b^2+a^2 C\right)\mathrm{Tan}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+\frac{\left(a^2 A-3 A b^2-2 a^2 C\right)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Tan}[c+d x]}{a^2\left(a^2-b^2\right)d}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]^2}{(a+b\,\mathrm{Cos}[c+d x])^{3/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]^3}{(a+b\,\mathrm{Cos}[c+d x])^{3/2}},\ x,\ 11,\ 0\right\}$$

$$\frac{b\left(7 a^2 A-15 A b^2-8 a^2 C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{4 a^3(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}-$$

$$\frac{5 A b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{4 a^2 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+\frac{\left(4 a^2 A+15 A b^2+8 a^2 C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{4 a^3 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}-$$

$$\frac{b\left(7 a^2 A-15 A b^2-8 a^2 C\right)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Tan}[c+d x]}{4 a^3\left(a^2-b^2\right)d}+\frac{2\left(A b^2+a^2 C\right)\mathrm{Sec}[c+d x]\,\mathrm{Tan}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{\left(a^2 A-5 A b^2-4 a^2 C\right)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Sec}[c+d x]\,\mathrm{Tan}[c+d x]}{2 a^2\left(a^2-b^2\right)d}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d x]^2\right)\mathrm{Sec}[c+d x]^3}{(a+b\,\mathrm{Cos}[c+d x])^{3/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 10,\ 0\right\}$$

$$-\frac{2\left(7\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+3\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^2\,(a-b)^2\,b\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a\,b\,\left(a^2-b^2\right)d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}+\frac{2\left(7\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+3\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 11,\ 0\right\}$$

$$-\frac{\left(3\,a^4\,A-26\,a^2\,A\,b^2+15\,A\,b^4-8\,a^4\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^3\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(3\,a^2\,A-5\,A\,b^2-2\,a^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^2\,\left(a^2-b^2\right)d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{5\,A\,b\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\ \mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Tan}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}+$$

$$\frac{2\left(9\,a^2\,A\,b^2-5\,A\,b^4+3\,a^4\,C+a^2\,b^2\,C\right)\mathrm{Tan}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{\left(3\,a^4\,A-26\,a^2\,A\,b^2+15\,A\,b^4-8\,a^4\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}[c+d\,x]}{3\,a^3\,\left(a^2-b^2\right)^2\,d}$$

$$\int\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}}\,dx$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^4\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{13/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{8\,a\,b\,\left(7\,a^2\,A+9\,A\,b^2+9\,a^2\,C+15\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,d}+$$

$$\frac{2\,\left(45\,a^4\,A+330\,a^2\,A\,b^2+77\,A\,b^4+55\,a^4\,C+462\,a^2\,b^2\,C+231\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{231\,d}+$$

$$\frac{2\,\left(675\,a^4\,A+3199\,a^2\,A\,b^2+128\,A\,b^4+825\,a^4\,C+4653\,a^2\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{3465\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{8\,a\,b\,\left(7\,a^2\,A+9\,A\,b^2+9\,a^2\,C+15\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{15\,d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,b\,\left(673\,a^2\,A+96\,A\,b^2+891\,a^2\,C\right)\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{3465\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,\left(27\,a^2\,A+16\,A\,b^2+33\,a^2\,C\right)\,(a+b\,\text{Cos}[c+d\,x])^2\,\text{Sin}[c+d\,x]}{231\,d\,\text{Cos}[c+d\,x]^{7/2}}+$$

$$\frac{16\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^3\,\text{Sin}[c+d\,x]}{99\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^4\,\text{Sin}[c+d\,x]}{11\,d\,\text{Cos}[c+d\,x]^{11/2}}$$

$$\frac{1}{1155\,d}\left(2\,\left(-2156\,a^3\,A\,b-2772\,a\,A\,b^3-2772\,a^3\,b\,C-4620\,a\,b^3\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]+\right.$$

$$\left.2\,\left(225\,a^4\,A+1650\,a^2\,A\,b^2+385\,A\,b^4+275\,a^4\,C+2310\,a^2\,b^2\,C+1155\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\right)+$$

$$\frac{1}{d}\,\sqrt{\text{Cos}[c+d\,x]}\,\left(\frac{2}{77}\,\text{Sec}[c+d\,x]^4\,\left(9\,a^4\,A\,\text{Sin}[c+d\,x]+66\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+11\,a^4\,C\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{8}{45}\,\text{Sec}[c+d\,x]^3\,\left(7\,a^3\,A\,b\,\text{Sin}[c+d\,x]+9\,a\,A\,b^3\,\text{Sin}[c+d\,x]+9\,a^3\,b\,C\,\text{Sin}[c+d\,x]\right)+\frac{2}{231}\,\text{Sec}[c+d\,x]^2$$

$$\left(45\,a^4\,A\,\text{Sin}[c+d\,x]+330\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+77\,A\,b^4\,\text{Sin}[c+d\,x]+55\,a^4\,C\,\text{Sin}[c+d\,x]+462\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{8}{15}\,\text{Sec}[c+d\,x]\,\left(7\,a^3\,A\,b\,\text{Sin}[c+d\,x]+9\,a\,A\,b^3\,\text{Sin}[c+d\,x]+9\,a^3\,b\,C\,\text{Sin}[c+d\,x]+15\,a\,b^3\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\left.\frac{8}{9}\,a^3\,A\,b\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]+\frac{2}{11}\,a^4\,A\,\text{Sec}[c+d\,x]^5\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{7/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,9,\,0\right\}$$

$$\frac{2\,\left(15\,a^2\,A\,b^2+9\,A\,b^4+15\,a^4\,C+9\,a^2\,b^2\,C+7\,b^4\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{15\,b^5\,d}-$$

$$\frac{2\,a\,\left(21\,a^2\,A\,b^2+7\,A\,b^4+21\,a^4\,C+7\,a^2\,b^2\,C+5\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,b^6\,d}+$$

$$\frac{2\,a^4\,\left(A\,b^2+a^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^6\,(a+b)\,d}-\frac{2\,a\,\left(7\,A\,b^2+7\,a^2\,C+5\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,b^4\,d}+$$

$$\frac{2\,\left(9\,A\,b^2+9\,a^2\,C+7\,b^2\,C\right)\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{45\,b^3\,d}-\frac{2\,a\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,b^2\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{9\,b\,d}$$

$$\frac{1}{630\,b^4\,d}\left(\sqrt{\text{Cos}[c+d\,x]}\,\left(7\,b\,\left(36\,A\,b^2+36\,a^2\,C+43\,b^2\,C\right)\,\text{Cos}[c+d\,x]-5\,\left(84\,a\,A\,b^2+84\,a^3\,C+78\,a\,b^2\,C+18\,a\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]-7\,b^3\,C\,\text{Cos}[3\,(c+d\,x)]\right)\right)\,\text{Sin}[c+d\,x]+6\left(\frac{\left(35\,a^4\,C+7\,b^4\,(9\,A+7\,C)+a^2\,b^2\,(35\,A+13\,C)\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{8\,a\,\left(7\,A\,b^2+7\,a^2\,C+6\,b^2\,C\right)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,7\,\left(15\,a^4\,C+3\,a^2\,b^2\,(5\,A+3\,C)+b^4\,(9\,A+7\,C)\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,8,\,0\right\}$$

$$-\frac{2\,a\,\left(5\,A\,b^2+5\,a^2\,C+3\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,b^4\,d}+\frac{2\,\left(21\,a^2\,A\,b^2+7\,A\,b^4+21\,a^4\,C+7\,a^2\,b^2\,C+5\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{21\,b^5\,d}-\frac{2\,a^3\,\left(A\,b^2+a^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^5\,(a+b)\,d}+\frac{2\,\left(7\,A\,b^2+7\,a^2\,C+5\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,b^3\,d}-\frac{2\,a\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b^2\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,b\,d}$$

$$\frac{1}{210\,b^3\,d}\left(-\frac{2\,a\,\left(35\,A\,b^2+35\,a^2\,C+13\,b^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{4\,\left(35\,A\,b^2-28\,a^2\,C+25\,b^2\,C\right)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+2\,\sqrt{\text{Cos}[c+d\,x]}\,\left(70\,A\,b^2+70\,a^2\,C+65\,b^2\,C-42\,a\,b\,C\,\text{Cos}[c+d\,x]+15\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]\right)\,\text{Sin}[c+d\,x]+\frac{1}{b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,42\,\left(5\,A\,b^2+5\,a^2\,C+3\,b^2\,C\right)\,\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$\frac{2\,\left(5\,A\,b^2+5\,a^2\,C+3\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,b^3\,d}-\frac{2\,a\,\left(3\,A\,b^2+3\,a^2\,C+b^2\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\,d}+\frac{2\,a^2\,\left(A\,b^2+a^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^4\,(a+b)\,d}-\frac{2\,a\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b^2\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b\,d}$$

$$\frac{1}{30 b^2 d}\left(\frac{2\left(15 A b^2+5 a^2 C+9 b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+8 a C\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)+4 C \sqrt{\text{Cos}[c+d x]}\,(-5 a+3 b \text{Cos}[c+d x]) \text{Sin}[c+d x]+\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 6\left(5 A b^2+5 a^2 C+3 b^2 C\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\left(A+C \text{Cos}[c+d x]^2\right)}{a+b \text{Cos}[c+d x]},x,6,0\right\}$$

$$-\frac{2 a C \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b^2 d}+\frac{2\left(3 A b^2+3 a^2 C+b^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 b^3 d}-\frac{2 a\left(A b^2+a^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{b^3(a+b) d}+\frac{2 C \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 b d}$$

$$\frac{1}{6 b d}\left(-\frac{2 a C \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\frac{4(3 A+C)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+4 C \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]+\frac{1}{b^2 \sqrt{\text{Sin}[c+d x]^2}} 6 C\left(2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]-2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(-2 a^2+b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C \text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{7/2}(a+b \text{Cos}[c+d x])},x,8,0\right\}$$

$$-\frac{2\left(3 a^2 A+5 A b^2+5 a^2 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{5 a^3 d}-\frac{2 A b \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 a^2 d}-\frac{2 b\left(A b^2+a^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^3(a+b) d}+\frac{2 A \text{Sin}[c+d x]}{5 a d \text{Cos}[c+d x]^{5/2}}-\frac{2 A b \text{Sin}[c+d x]}{3 a^2 d \text{Cos}[c+d x]^{3/2}}+\frac{2\left(3 a^2 A+5 A b^2+5 a^2 C\right) \text{Sin}[c+d x]}{5 a^3 d \sqrt{\text{Cos}[c+d x]}}$$

$$\frac{1}{30 a^3 d}\left(\frac{4\left(3\left(5 A b^2+a^2(3 A+5 C)\right)-5 a A b \operatorname{Sec}[c+d x]+3 a^2 A \operatorname{Sec}[c+d x]^2\right) \operatorname{Sin}[c+d x]}{\sqrt{\operatorname{Cos}[c+d x]}}-\right.$$
$$\frac{1}{b}\left(\frac{2 b^2\left(45 A b^2+a^2(19 A+45 C)\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\right.$$
$$\left(40 a A b^2+6 a^3(3 A+5 C)\right)\left(2 \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-\frac{2 a \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}\right)+$$
$$\frac{1}{a \sqrt{\operatorname{Sin}[c+d x]^2}} 6\left(5 A b^2+a^2(3 A+5 C)\right)\left(-2 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]+2 a(a+b)\right.$$
$$\left.\left.\left.\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]+\left(2 a^2-b^2\right) \operatorname{EllipticPi}\left[-\frac{b}{a}, -\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]\right) \operatorname{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C \operatorname{Cos}[c+d x]^2}{\operatorname{Cos}[c+d x]^{9/2}(a+b \operatorname{Cos}[c+d x])}, x, 9, 0\right\}$$
$$\frac{2 b\left(3 a^2 A+5 A b^2+5 a^2 C\right) \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{5 a^4 d}+\frac{2\left(5 a^2 A+7 A b^2+7 a^2 C\right) \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{21 a^3 d}+$$
$$\frac{2 b^2\left(A b^2+a^2 C\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a^4(a+b) d}+\frac{2 A \operatorname{Sin}[c+d x]}{7 a d \operatorname{Cos}[c+d x]^{7/2}}-\frac{2 A b \operatorname{Sin}[c+d x]}{5 a^2 d \operatorname{Cos}[c+d x]^{5/2}}+$$
$$\frac{2\left(5 a^2 A+7 A b^2+7 a^2 C\right) \operatorname{Sin}[c+d x]}{21 a^3 d \operatorname{Cos}[c+d x]^{3/2}}-\frac{2 b\left(3 a^2 A+5 A b^2+5 a^2 C\right) \operatorname{Sin}[c+d x]}{5 a^4 d \sqrt{\operatorname{Cos}[c+d x]}}$$

$$\frac{1}{210 a^4 d}\left(\frac{2\left(315 A b^4+10 a^4(5 A+7 C)+7 a^2 b^2(19 A+45 C)\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\right.$$
$$\frac{16\left(35 a A b^2+a^3(22 A+35 C)\right)\left((a+b) \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{\sqrt{\operatorname{Cos}[c+d x]}}$$
$$4\left(-21 b\left(5 A b^2+a^2(3 A+5 C)\right)+5 a\left(7 A b^2+a^2(5 A+7 C)\right) \operatorname{Sec}[c+d x]-21 a^2 A b \operatorname{Sec}[c+d x]^2+15 a^3 A \operatorname{Sec}[c+d x]^3\right)$$
$$\operatorname{Sin}[c+d x]+\frac{1}{a \sqrt{\operatorname{Sin}[c+d x]^2}} 42\left(5 A b^2+a^2(3 A+5 C)\right)$$
$$\left(-2 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]+2 a(a+b) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]+\right.$$
$$\left.\left(2 a^2-b^2\right) \operatorname{EllipticPi}\left[-\frac{b}{a}, -\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right], -1\right]\right) \operatorname{Sin}[c+d x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C \operatorname{Cos}[c+d x]^2}{\operatorname{Cos}[c+d x]^{11/2}(a+b \operatorname{Cos}[c+d x])}, x, 10, 0\right\}$$

$$-\frac{2\left(7a^4A+9a^2Ab^2+15Ab^4+9a^4C+15a^2b^2C\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{15a^5d}-$$
$$\frac{2b\left(5a^2A+7Ab^2+7a^2C\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{21a^4d}-\frac{2b^3\left(Ab^2+a^2C\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^5(a+b)d}+$$
$$\frac{2A\,\text{Sin}[c+dx]}{9ad\,\text{Cos}[c+dx]^{9/2}}-\frac{2Ab\,\text{Sin}[c+dx]}{7a^2d\,\text{Cos}[c+dx]^{7/2}}+\frac{2\left(7a^2A+9Ab^2+9a^2C\right)\text{Sin}[c+dx]}{45a^3d\,\text{Cos}[c+dx]^{5/2}}-$$
$$\frac{2b\left(5a^2A+7Ab^2+7a^2C\right)\text{Sin}[c+dx]}{21a^4d\,\text{Cos}[c+dx]^{3/2}}+\frac{2\left(7a^4A+9a^2Ab^2+15Ab^4+9a^4C+15a^2b^2C\right)\text{Sin}[c+dx]}{15a^5d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{315a^5d}\left(\frac{1}{\sqrt{\text{Cos}[c+dx]}}2\left(21\left(15Ab^4+3a^2b^2(3A+5C)+a^4(7A+9C)\right)-15ab\left(7Ab^2+a^2(5A+7C)\right)\text{Sec}[c+dx]+\right.\right.$$
$$\left.7a^2\left(9Ab^2+a^2(7A+9C)\right)\text{Sec}[c+dx]^2-45a^3Ab\,\text{Sec}[c+dx]^3+35a^4A\,\text{Sec}[c+dx]^4\right)\text{Sin}[c+dx]-$$
$$\frac{1}{b}3\left(\frac{b^2\left(315Ab^4+7a^2b^2(19A+45C)+a^4(99A+133C)\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\right.$$
$$\frac{1}{a+b}2\left(140aAb^4+7a^5(7A+9C)+4a^3b^2(22A+35C)\right)$$
$$\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)+\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}$$
$$7\left(15Ab^4+3a^2b^2(3A+5C)+a^4(7A+9C)\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\right.$$
$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+dx]^{5/2}\left(A+C\,\text{Cos}[c+dx]^2\right)}{(a+b\,\text{Cos}[c+dx])^2},x,8,0\right\}$$
$$\frac{\left(15a^2Ab^2-10Ab^4+35a^4C-24a^2b^2C-6b^4C\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{5b^4\left(a^2-b^2\right)d}-$$
$$\frac{a\left(9a^2Ab^2-12Ab^4+21a^4C-20a^2b^2C-4b^4C\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3b^5\left(a^2-b^2\right)d}+$$
$$\frac{a^2\left(3a^2Ab^2-5Ab^4+7a^4C-9a^2b^2C\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{(a-b)b^5(a+b)^2d}-\frac{a\left(3Ab^2+7a^2C-4b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3b^3\left(a^2-b^2\right)d}+$$
$$\frac{\left(5Ab^2+7a^2C-2b^2C\right)\text{Cos}[c+dx]^{3/2}\text{Sin}[c+dx]}{5b^2\left(a^2-b^2\right)d}-\frac{\left(Ab^2+a^2C\right)\text{Cos}[c+dx]^{5/2}\text{Sin}[c+dx]}{b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{60 b^3 d}\left(\frac{1}{(a-b)(a+b)}\left(\frac{2\left(a^2 b^2 (15 A-32 C)+35 a^4 C-6 b^4 (5 A+3 C)\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{8 a\left(15 A b^2+\left(14 a^2+b^2\right) C\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}$$

$$6\left(3 a^2 b^2 (5 A-8 C)+35 a^4 C-2 b^4 (5 A+3 C)\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\Bigg)+$$

$$\left.4\sqrt{\text{Cos}[c+d x]}\left(-20 a C\,\text{Sin}[c+d x]-\frac{15 a^2\left(A b^2+a^2 C\right)\text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}+3 b C\,\text{Sin}[2(c+d x)]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)}{(a+b\,\text{Cos}[c+d x])^2},x,7,0\right\}$$

$$-\frac{a\left(A b^2+5 a^2 C-4 b^2 C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b^3\left(a^2-b^2\right)d}+\frac{\left(3 a^2 A b^2-6 A b^4+15 a^4 C-16 a^2 b^2 C-2 b^4 C\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 b^4\left(a^2-b^2\right)d}-$$

$$\frac{a\left(a^2 A b^2-3 A b^4+5 a^4 C-7 a^2 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{(a-b) b^4 (a+b)^2 d}+$$

$$\frac{\left(3 A b^2+5 a^2 C-2 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)d}-\frac{\left(A b^2+a^2 C\right)\text{Cos}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{12 b^2 d}\left(4\sqrt{\text{Cos}[c+d x]}\left(2 C+\frac{3 a\left(A b^2+a^2 C\right)}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}\right)\text{Sin}[c+d x]-\right.$$

$$\frac{1}{(a-b)(a+b)}\left(\frac{2 a\left(-3 A b^2+5 a^2 C-8 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{8\left(3 A b^2+\left(2 a^2+b^2\right) C\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}-$$

$$\frac{1}{b^2\sqrt{\text{Sin}[c+d x]^2}}6\left(A b^2+5 a^2 C-4 b^2 C\right)\left(2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]-2 a (a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(-2 a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\left(A+C\,\text{Cos}[c+d x]^2\right)}{(a+b\,\text{Cos}[c+d x])^2},x,6,0\right\}$$

$$\frac{\left(A b^2+3 a^2 C-2 b^2 C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b^2\left(a^2-b^2\right)d}+\frac{a\left(A b^2-3 a^2 C+4 b^2 C\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b^3\left(a^2-b^2\right)d}-$$

$$\frac{\left(a^2 A b^2+A b^4-3 a^4 C+5 a^2 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{(a-b) b^3 (a+b)^2 d}-\frac{\left(A b^2+a^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])}$$

$$-\frac{1}{4\,b\,d}\left(\frac{4\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d\,x]\right)}+\frac{1}{(-a+b)\,(a+b)}\left(\frac{2\left(-A\,b^2+\left(a^2-2\,b^2\right)C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.\right.$$

$$\frac{8\,a\,(A+C)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}2\left(A\,b^2+3\,a^2\,C-2\,b^2\,C\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,\left(a+b\,\text{Cos}[c+d\,x]\right)^2},\,x,\,6,\,0\right\}$$

$$-\frac{\left(A\,b^2+a^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,b\,\left(a^2-b^2\right)d}-\frac{\left(A\,b^2-a^2\,C+2\,b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,\left(a^2-b^2\right)d}+$$

$$\frac{\left(3\,a^2\,A\,b^2-A\,b^4-a^4\,C+3\,a^2\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,(a-b)\,b^2\,(a+b)^2\,d}+\frac{\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)d\,\left(a+b\,\text{Cos}[c+d\,x]\right)}$$

$$\frac{1}{4\,a\,d}\left(\frac{4\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d\,x]\right)}+\frac{1}{(a-b)\,(a+b)}\left(\frac{2\left(-3\,A\,b^2+a^2\,(4\,A+C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\right.\right.$$

$$\frac{8\,a\,(A+C)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$2\left(A\,b^2+a^2\,C\right)\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(-2\,a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,\left(a+b\,\text{Cos}[c+d\,x]\right)^2},\,x,\,7,\,0\right\}$$

$$-\frac{\left(2\,a^2\,A-3\,A\,b^2-a^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,\left(a^2-b^2\right)d}+\frac{\left(A\,b^2+a^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,b\,\left(a^2-b^2\right)d}-$$

$$\frac{\left(5\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+a^2\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,(a-b)\,b\,(a+b)^2\,d}+$$

$$\frac{\left(2\,a^2\,A-3\,A\,b^2-a^2\,C\right)\text{Sin}[c+d\,x]}{a^2\,\left(a^2-b^2\right)d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{\left(A\,b^2+a^2\,C\right)\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)d\,\sqrt{\text{Cos}[c+d\,x]}\,\left(a+b\,\text{Cos}[c+d\,x]\right)}$$

$$\frac{1}{4a^2 d}\left(-\frac{1}{b(-a+b)(a+b)}\left(-\frac{2b^2\left(-9Ab^2+a^2(10A+C)\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\left(8aAb^2-4a^3(A-C)\right)\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-\frac{2a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}\right)-\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}2\left(-3Ab^2+a^2(2A-C)\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)+4\sqrt{\text{Cos}[c+dx]}\left(\frac{\left(Ab^3+a^2bC\right)\text{Sin}[c+dx]}{\left(-a^2+b^2\right)(a+b\,\text{Cos}[c+dx])}+2A\,\text{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{\text{Cos}[c+dx]^{5/2}(a+b\,\text{Cos}[c+dx])^2},x,8,0\right\}$$

$$\frac{b\left(4a^2A-5Ab^2-a^2C\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{a^3\left(a^2-b^2\right)d}+\frac{\left(2a^2A-5Ab^2-3a^2C\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3a^2\left(a^2-b^2\right)d}+\frac{\left(7a^2Ab^2-5Ab^4+3a^4C-a^2b^2C\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^3(a-b)(a+b)^2d}+\frac{\left(2a^2A-5Ab^2-3a^2C\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}-\frac{b\left(4a^2A-5Ab^2-a^2C\right)\text{Sin}[c+dx]}{a^3\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}+\frac{\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{12a^3d}\left(\frac{1}{(a-b)(a+b)}\left(\frac{2\left(-45Ab^4+a^2b^2(44A-9C)+4a^4(A+3C)\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\frac{8\left(-10aAb^2+a^3(7A-3C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{a+b}+\frac{1}{a\sqrt{\text{Sin}[c+dx]^2}}6\left(-5Ab^2+a^2(4A-C)\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)+4\sqrt{\text{Cos}[c+dx]}\left(\frac{3b^2\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+2A(-6b+a\,\text{Sec}[c+dx])\,\text{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+dx]^2}{\text{Cos}[c+dx]^{7/2}(a+b\,\text{Cos}[c+dx])^2},x,9,0\right\}$$

$$-\frac{\left(6 a^4 A+24 a^2 A b^2-35 A b^4+10 a^4 C-15 a^2 b^2 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{5 a^4 \left(a^2-b^2\right) d}-$$

$$\frac{b \left(4 a^2 A-7 A b^2-3 a^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 a^3 \left(a^2-b^2\right) d}-\frac{b \left(9 a^2 A b^2-7 A b^4+5 a^4 C-3 a^2 b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^4 (a-b) (a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-7 A b^2-5 a^2 C\right) \text{Sin}[c+d x]}{5 a^2 \left(a^2-b^2\right) d \text{Cos}[c+d x]^{5/2}}-\frac{b \left(4 a^2 A-7 A b^2-3 a^2 C\right) \text{Sin}[c+d x]}{3 a^3 \left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}}+$$

$$\frac{\left(6 a^4 A+24 a^2 A b^2-35 A b^4+10 a^4 C-15 a^2 b^2 C\right) \text{Sin}[c+d x]}{5 a^4 \left(a^2-b^2\right) d \sqrt{\text{Cos}[c+d x]}}+\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d \text{Cos}[c+d x]^{5/2} (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{30 a^4 d}\left(-\frac{1}{b(-a+b)(a+b)}\left(\frac{b^2 \left(315 A b^4-2 a^4 (29 A+75 C)+a^2 b^2 (-272 A+135 C)\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.\right.$$

$$\frac{1}{a+b} 4 \left(-70 a A b^4+2 a^3 b^2 (23 A-15 C)+3 a^5 (3 A+5 C)\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\right.$$

$$\left.a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)-\frac{1}{a \sqrt{\text{Sin}[c+d x]^2}} 3 \left(-35 A b^4+3 a^2 b^2 (8 A-5 C)+2 a^4 (3 A+5 C)\right)$$

$$\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)+2 \sqrt{\text{Cos}[c+d x]}$$

$$\left.\left(\frac{15 \left(A b^5+a^2 b^3 C\right) \text{Sin}[c+d x]}{\left(-a^2+b^2\right)(a+b \text{Cos}[c+d x])}+2 \left(45 A b^2+3 a^2 (3 A+5 C)-10 a A b \text{Sec}[c+d x]+3 a^2 A \text{Sec}[c+d x]^2\right) \text{Tan}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{5/2} \left(A+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{a \left(3 a^2 A b^2-9 A b^4+35 a^4 C-65 a^2 b^2 C+24 b^4 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^4 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(9 a^4 A b^2-15 a^2 A b^4+24 A b^6+105 a^6 C-223 a^4 b^2 C+128 a^2 b^4 C+8 b^6 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{12 b^5 \left(a^2-b^2\right)^2 d}-$$

$$\frac{a \left(3 a^4 A b^2-6 a^2 A b^4+15 A b^6+35 a^6 C-86 a^4 b^2 C+63 a^2 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 (a-b)^2 b^5 (a+b)^3 d}+$$

$$\frac{\left(3 a^2 A b^2-21 A b^4+35 a^4 C-61 a^2 b^2 C+8 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{12 b^3 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(A b^2+a^2 C\right) \text{Cos}[c+d x]^{5/2} \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{\left(a^2 A b^2+5 A b^4-7 a^4 C+13 a^2 b^2 C\right) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{4 b^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{48 b^3 d}\left(\frac{1}{(a^2-b^2)^2 (a+b\,\mathrm{Cos}[c+d x])^2} 4\sqrt{\mathrm{Cos}[c+d x]}\left(3 a^4 A b^2-21 a^2 A b^4+35 a^6 C-57 a^4 b^2 C+4 b^6 C+\right.\right.$$
$$\left.a b\left(a^2 b^2 (9 A-83 C)+49 a^4 C+b^4 (-27 A+16 C)\right)\mathrm{Cos}[c+d x]+4\left(-a^2 b+b^3\right)^2 C\,\mathrm{Cos}[2 (c+d x)]\right)\mathrm{Sin}[c+d x]-$$
$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2 a\left(a^2 b^2 (3 A-73 C)+35 a^4 C+b^4 (15 A+56 C)\right)\mathrm{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.$$
$$\frac{16\left(-7 a^4 C+2 b^4 (3 A+C)+a^2 b^2 (3 A+14 C)\right)\left((a+b)\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\mathrm{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$
$$\frac{1}{b^2\sqrt{\mathrm{Sin}[c+d x]^2}}6\left(a^2 b^2 (3 A-65 C)+35 a^4 C+3 b^4 (-3 A+8 C)\right)$$
$$\left(-2 a b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]+\right.$$
$$\left.\left.\left.\left(2 a^2-b^2\right)\mathrm{EllipticPi}\left[-\frac{b}{a},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]\right)\mathrm{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d x]^{3/2}\left(A+C\,\mathrm{Cos}[c+d x]^2\right)}{(a+b\,\mathrm{Cos}[c+d x])^3},x,7,0\right\}$$
$$-\frac{\left(a^2 A b^2+5 A b^4-15 a^4 C+29 a^2 b^2 C-8 b^4 C\right)\mathrm{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^3\left(a^2-b^2\right)^2 d}+$$
$$\frac{a\left(a^2 A b^2-7 A b^4-15 a^4 C+33 a^2 b^2 C-24 b^4 C\right)\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 b^4\left(a^2-b^2\right)^2 d}-$$
$$\frac{\left(a^4 A b^2-10 a^2 A b^4-3 A b^6-15 a^6 C+38 a^4 b^2 C-35 a^2 b^4 C\right)\mathrm{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 (a-b)^2 b^4 (a+b)^3 d}-$$
$$\frac{\left(A b^2+a^2 C\right)\mathrm{Cos}[c+d x]^{3/2}\mathrm{Sin}[c+d x]}{2 b\left(a^2-b^2\right) d (a+b\,\mathrm{Cos}[c+d x])^2}+\frac{\left(3 a^2 A b^2+3 A b^4-5 a^4 C+11 a^2 b^2 C\right)\sqrt{\mathrm{Cos}[c+d x]}\,\mathrm{Sin}[c+d x]}{4 b^2\left(a^2-b^2\right)^2 d (a+b\,\mathrm{Cos}[c+d x])}$$

$$\frac{1}{8 b^2 d}\left(\frac{2\sqrt{\mathrm{Cos}[c+d x]}\left(3 a A b^4-5 a^5 C+a^3 b^2 (3 A+11 C)+\left(5 A b^5-7 a^4 b C+a^2 b^3 (A+13 C)\right)\mathrm{Cos}[c+d x]\right)\mathrm{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b\,\mathrm{Cos}[c+d x])^2}+\right.$$
$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{\left(a^2 b^2 (5 A-7 C)+5 a^4 C+b^4 (A+8 C)\right)\mathrm{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$
$$\frac{8 a\left(-3 A b^2+\left(a^2-4 b^2\right) C\right)\left((a+b)\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\mathrm{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+\frac{1}{a b^2\sqrt{\mathrm{Sin}[c+d x]^2}}$$
$$\left(15 a^4 C+b^4 (-5 A+8 C)-a^2 b^2 (A+29 C)\right)\left(-2 a b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$
$$\left.\left.\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\mathrm{EllipticPi}\left[-\frac{b}{a},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d x]}\right],-1\right]\right)\mathrm{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$\frac{\left(5\,a^2\,A\,b^2+A\,b^4-3\,a^4\,C+9\,a^2\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,b^2\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(3\,a^2\,A\,b^2+3\,A\,b^4+3\,a^4\,C-5\,a^2\,b^2\,C+8\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^3\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(3\,a^4\,A\,b^2+10\,a^2\,A\,b^4-A\,b^6+3\,a^6\,C-6\,a^4\,b^2\,C+15\,a^2\,b^4\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,(a-b)^2\,b^3\,(a+b)^3\,d}-$$

$$\frac{\left(A\,b^2+a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{\left(5\,a^2\,A\,b^2+A\,b^4-3\,a^4\,C+9\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{8\,a\,b\,d}\left(\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,\left(a\,A\,b^4+a^5\,C-7\,a^3\,b^2\,(A+C)+b\,\left(-A\,b^4+3\,a^4\,C-a^2\,b^2\,(5\,A+9\,C)\right)\,\text{Cos}[c+d\,x]\right)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}-\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{\left(-3\,A\,b^4+a^4\,C+a^2\,b^2\,(9\,A+5\,C)\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}-\right.$$

$$\frac{8\,a\,\left(a^2\,(2\,A+C)+b^2\,(A+2\,C)\right)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\right)}{a+b}+$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\left(-A\,b^4+3\,a^4\,C-a^2\,b^2\,(5\,A+9\,C)\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\ -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{\left(9\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+5\,a^2\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^2\,b\,\left(a^2-b^2\right)^2\,d}-\frac{\left(7\,a^2\,A\,b^2-A\,b^4-a^4\,C+7\,a^2\,b^2\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,b^2\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(15\,a^4\,A\,b^2-6\,a^2\,A\,b^4+3\,A\,b^6-a^6\,C+10\,a^4\,b^2\,C+3\,a^2\,b^4\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^2\,(a-b)^2\,b^2\,(a+b)^3\,d}+$$

$$\frac{\left(A\,b^2+a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{\left(9\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+5\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{16 a^2 d}\left(\frac{4\sqrt{\text{Cos}[c+d x]}\left(-5 a A b^4+3 a^5 C+a^3 b^2 (11 A+3 C)+b\left(-3 A b^4+a^4 C+a^2 b^2 (9 A+5 C)\right)\text{Cos}[c+d x]\right)\text{Sin}[c+d x]}{\left(a^2-b^2\right)^2 (a+b\,\text{Cos}[c+d x])^2}+\right.$$

$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2\left(9 A b^4+a^2 b^2 (-19 A+C)+a^4 (16 A+5 C)\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{16\left(a A b^2-a^3 (4 A+3 C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}-$$

$$\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}2\left(-3 A b^4+a^4 C+a^2 b^2 (9 A+5 C)\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{3/2}(a+b\,\text{Cos}[c+d x])^3},x,8,0\right\}$$

$$-\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4-5 a^4 C-a^2 b^2 C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 a^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(11 a^2 A b^2-5 A b^4+3 a^4 C+3 a^2 b^2 C\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 a^2 b\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(35 a^4 A b^2-38 a^2 A b^4+15 A b^6+3 a^6 C+10 a^4 b^2 C-a^2 b^4 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 a^3 (a-b)^2 b (a+b)^3 d}+$$

$$\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4-5 a^4 C-a^2 b^2 C\right)\text{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2 d\sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{\left(A b^2+a^2 C\right)\text{Sin}[c+d x]}{2 a\left(a^2-b^2\right) d\sqrt{\text{Cos}[c+d x]}(a+b\,\text{Cos}[c+d x])^2}+\frac{\left(11 a^2 A b^2-5 A b^4+3 a^4 C+3 a^2 b^2 C\right)\text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2 d\sqrt{\text{Cos}[c+d x]}(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{8 a^3 d}\left(-\frac{1}{(a-b)^2 b (a+b)^2}\left(\frac{b^2\left(45 A b^4-a^2 b^2 (95 A+3 C)+a^4 (56 A+9 C)\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{8\left(5 a A b^4+2 a^5 (A-C)-a^3 b^2 (10 A+C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a\sqrt{\text{Sin}[c+d x]^2}}\left(15 A b^4+a^4 (8 A-5 C)-a^2 b^2 (29 A+C)\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)+$$

$$\frac{1}{\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d x])^2}\sqrt{\text{Cos}[c+d x]}\left(2 a b\left(25 A b^4+a^4 (16 A-7 C)+a^2 b^2 (-47 A+C)\right)\text{Sin}[c+d x]+\right.$$

$$\left.b^2\left(15 A b^4+a^4 (8 A-5 C)-a^2 b^2 (29 A+C)\right)\text{Sin}[2(c+d x)]+16 A\left(a^3-a b^2\right)^2\text{Tan}[c+d x]\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 9,\ 0\right\}$$

$$\frac{b\left(24\,a^4\,A-65\,a^2\,A\,b^2+35\,A\,b^4-9\,a^4\,C+3\,a^2\,b^2\,C\right)\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^4\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4-21\,a^4\,C+3\,a^2\,b^2\,C\right)\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{12\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(63\,a^4\,A\,b^2-86\,a^2\,A\,b^4+35\,A\,b^6+15\,a^6\,C-6\,a^4\,b^2\,C+3\,a^2\,b^4\,C\right)\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a^4\,(a-b)^2\,(a+b)^3\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4-21\,a^4\,C+3\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{12\,a^3\,\left(a^2-b^2\right)^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-\frac{b\left(24\,a^4\,A-65\,a^2\,A\,b^2+35\,A\,b^4-9\,a^4\,C+3\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{4\,a^4\,\left(a^2-b^2\right)^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{\left(13\,a^2\,A\,b^2-7\,A\,b^4+5\,a^4\,C+a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48\,a^4\,(a-b)^2\,(a+b)^2\,d}$$

$$\left(\frac{2\left(16\,a^6\,A+328\,a^4\,A\,b^2-641\,a^2\,A\,b^4+315\,A\,b^6+48\,a^6\,C-57\,a^4\,b^2\,C+27\,a^2\,b^4\,C\right)\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}+\right.$$

$$\frac{\left(160\,a^5\,A\,b-512\,a^3\,A\,b^3+280\,a\,A\,b^5-96\,a^5\,b\,C+24\,a^3\,b^3\,C\right)\left(2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-\frac{2\,a\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}\right)}{b}+$$

$$\frac{1}{a\,b^2\,\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\,\left(-1+2\,\mathrm{Cos}[c+d\,x]^2\right)}2\left(72\,a^4\,A\,b^2-195\,a^2\,A\,b^4+105\,A\,b^6-27\,a^4\,b^2\,C+9\,a^2\,b^4\,C\right)\mathrm{Cos}[2\,(c+d\,x)]$$

$$\left(-2\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+\right.$$

$$\left.\left.\left(2\,a^2-b^2\right)\mathrm{EllipticPi}\left[-\frac{b}{a},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]\right)\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\left(\frac{A\,b^4\,\mathrm{Sin}[c+d\,x]+a^2\,b^2\,C\,\mathrm{Sin}[c+d\,x]}{2\,a^3\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\right.$$

$$\frac{17\,a^2\,A\,b^4\,\mathrm{Sin}[c+d\,x]-11\,A\,b^6\,\mathrm{Sin}[c+d\,x]+9\,a^4\,b^2\,C\,\mathrm{Sin}[c+d\,x]-3\,a^2\,b^4\,C\,\mathrm{Sin}[c+d\,x]}{4\,a^4\,\left(a^2-b^2\right)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}-$$

$$\left.\frac{6\,A\,b\,\mathrm{Tan}[c+d\,x]}{a^4}+\frac{2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a^3}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right),\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(24 A b^2-3 a^2 C+16 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{24 b^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{a(24 A b-a C+14 b C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{12 b d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{a\left(8 A b^2+a^2 C+4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 b^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{a C\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{12 b d}+\frac{C\,\text{Cos}[c+d x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 d}+$$

$$\frac{\left(24 A b^2-3 a^2 C+16 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b^2 d}$$

$$\frac{1}{48 b d}\left(-\left(4 a\left(24 A b^2-a^2 C+16 b^2 C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-$$

$$4 a(48 a A b+28 a b C)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(24\,A\,b^2-3\,a^2\,C+16\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\sqrt{\text{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{a\,C\,\text{Sin}[c+d x]}{12 b}+\frac{1}{6}C\,\text{Sin}[2(c+d x)]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\left(A+C\,\text{Cos}[c+d x]^2\right)}{\sqrt{\text{Cos}[c+d x]}},x,7,0\right\}$$

$$\frac{a(a+b)C\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 b d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{(4 a A-4 A b+a C-2 b C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{\left(8 A b^2-a^2 C+4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 b d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{C\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 d}+\frac{a C\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b d}$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(8\,a\,A+3\,a\,C)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(8\,A\,b+4\,b\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2aC\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\Bigg\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\big(A+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{3/2}},\ x,\ 7,\ 0\Bigg\}$$

$$-\frac{(a+b)\,(2A-C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A+A\,b-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(2\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,d}\left(-\left(4\,a\,b\,C\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(-2\,a\,A+2\,a\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(-2\,A\,b+b\,C)\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right),\,x,\,9,\,0\right\}$$

$$\frac{a\,(a+b)\left(80\,A\,b^2-3\,a^2\,C+52\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{64\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{1}{32\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(64\,a^2\,A\,b-16\,a\,A\,b^2+32\,A\,b^3-a^3\,C+38\,a^2\,b\,C-12\,a\,b^2\,C+24\,b^3\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{32\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(48\,a^2\,A\,b^2+64\,A\,b^4+3\,a^4\,C+24\,a^2\,b^2\,C+48\,b^4\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{\left(16\,A\,b^2+a^2\,C+12\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{32\,b\,d}+$$

$$\frac{a\,C\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{8\,d}+\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d}+$$

$$\frac{a\left(80\,A\,b^2-3\,a^2\,C+52\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{64\,b^2\,d}$$

$$-\frac{1}{128\,b\,d}\left(-\left(4\,a\left(-112\,a\,A\,b^2+a^3\,C-76\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-128\,a^2\,A\,b-64\,A\,b^3-76\,a^2\,b\,C-48\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\left.\left.\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\right.\right.$$

$$\left.\left.\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\right)+2\left(-80 a A b^2+3 a^3 C-52 a b^2 C\right)$$

$$\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\right.\right.$$

$$\left.\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{\left(16\,A\,b^2+a^2\,C+14\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{32\,b}+\frac{3}{16}\,a\,C\,\mathrm{Sin}[2\,(c+d\,x)]+\frac{1}{16}\,b\,C\,\mathrm{Sin}[3\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\;x,\;8,\;0\right\}$$

$$\frac{(a+b)\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{24\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,(24\,a\,A-48\,A\,b+7\,a\,C-26\,b\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{12\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\left(24\,A\,b^2-a^2\,C+12\,b^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{a\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{4\,d}+\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b\,d}$$

$$\frac{1}{48\,d}\left(-\left(4\,a\,\left(48\,a^2\,A+24\,A\,b^2+17\,a^2\,C+16\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\,(96\,a\,A\,b+52\,a\,b\,C)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{7}{12}\,a\,C\,\mathrm{Sin}[c+d\,x]+\frac{1}{6}\,b\,C\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{3/2}},\;x,\;8,\;0\right\}$$

$$-\frac{a\,(a+b)\,(8\,A-5\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a^2\,A+8\,a\,A\,b-4\,A\,b^2-4\,a^2\,C+a\,b\,C-2\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$+\frac{\left(8\,A\,b^2+3\,a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{b\,(4\,A-C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{a\,(8\,A-5\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d}$$

$$\frac{1}{8d}\left(\left(4a(-8aAb-7abC)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)+4a\left(8a^2A-8Ab^2-8a^2C-4b^2C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)-$$

$$2(8aAb-5abC)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{2}bC\,\mathrm{Sin}[c+dx]+2aA\,\mathrm{Tan}[c+dx]\Big)}{d}$$

Incorrect antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\big(A+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{7/2}},x,8,0\Big\}$$

$$-\frac{2\,(a+b)\,\left(3\,a^2\,A+A\,b^2+5\,a^2\,C\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{5\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{5\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(3\,a^2\,A+4\,a\,A\,b+A\,b^2+5\,a^2\,C+10\,a\,b\,C-5\,b^2\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^2\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(3\,a^2\,A+A\,b^2+5\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{5\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{5\,a\,d}\left(-\left(4\,a\,\left(-a^2\,A\,b+A\,b^3-5\,a^2\,b\,C\right)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\,\left(3\,a^3\,A+a\,A\,b^2+5\,a^3\,C-5\,a\,b^2\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(3\,a^2\,A\,b+A\,b^3+5\,a^2\,b\,C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}$$

$$2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{2\,\text{Sec}[c+d\,x]\left(3\,a^2\,A\,\text{Sin}[c+d\,x]+A\,b^2\,\text{Sin}[c+d\,x]+5\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{5\,a}+\right.$$

$$\frac{4}{5}\,A\,b\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]+\frac{2}{5}\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\,x,\,8,\,0\right\}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+189\,a^4\,C+63\,a^2\,b^2\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(147\,a^4\,A+186\,a^3\,A\,b+33\,a^2\,A\,b^2+2\,a\,A\,b^3+8\,A\,b^4+189\,a^4\,C+252\,a^3\,b\,C+63\,a^2\,b^2\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,\left(49\,a^2\,A+3\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{315\,a\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{4\,b\,\left(44\,a^2\,A-2\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{315\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}+$$

$$\frac{2\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+189\,a^4\,C+63\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)}$$

$$2\,\sqrt{\frac{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(8\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(8\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\,\left(-6\,a\,A\,b^2+8\,A\,b^3+21\,a^3\,(7\,A+9\,C)+a^2\,(39\,A\,b+63\,b\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+\frac{1}{d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2\,\text{Sec}[c+d\,x]^3\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{315\,a}+\right.$$

$$\frac{4\,\text{Sec}[c+d\,x]^2\,\left(44\,a^2\,A\,b\,\text{Sin}[c+d\,x]-2\,A\,b^3\,\text{Sin}[c+d\,x]+63\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+\frac{1}{315\,a^3}\,2\,\text{Sec}[c+d\,x]$$

$$\left(147\,a^4\,A\,\text{Sin}[c+d\,x]+33\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+8\,A\,b^4\,\text{Sin}[c+d\,x]+189\,a^4\,C\,\text{Sin}[c+d\,x]+63\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\left.\frac{20}{63}\,A\,b\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]+\frac{2}{9}\,a\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right),\ x,\ 10,\ 0\right\}$$

$$\frac{1}{1920\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(2640\,a^2\,A\,b^2+1280\,A\,b^4-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]-$$

$$\frac{1}{960\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\left(1920\,a^2\,A\,b-1040\,a\,A\,b^2+3040\,A\,b^3-15\,a^3\,C+1146\,a^2\,b\,C-772\,a\,b^2\,C+2312\,b^3\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+$$

$$\frac{1}{64\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\left(80\,a^2\,A\,b^2+320\,A\,b^4+3\,a^4\,C+40\,a^2\,b^2\,C+240\,b^4\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]+$$

$$\frac{a\left(1040\,A\,b^2+15\,a^2\,C+772\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{960\,b\,d}+$$

$$\frac{\left(80\,A\,b^2+15\,a^2\,C+64\,b^2\,C\right)\text{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,d}+$$

$$\frac{a\,C\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{8\,d}+\frac{C\,\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{\left(2640\,a^2\,A\,b^2+1280\,A\,b^4-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{1920\,b^2\,d}$$

$$-\frac{1}{3840\,b\,d}\left(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(-4720\,a^2\,A\,b^2-1280\,A\,b^4+15\,a^4\,C-3236\,a^2\,b^2\,C-1024\,b^4\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-3840\,a^3\,A\,b-6080\,a\,A\,b^3-2292\,a^3\,b\,C-4624\,a\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\right.\right.$$

$$\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\Big[$$

$$\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\Big((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-2640\,a^2\,A\,b^2-1280\,A\,b^4+45\,a^4\,C-1692\,a^2\,b^2\,C-1024\,b^4\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{a\left(1040\,A\,b^2+15\,a^2\,C+898\,b^2\,C\right)\mathrm{Sin}[c+dx]}{960\,b}+\right.$$

$$\frac{1}{480}$$

$$\left(80\,A\,b^2+93\,a^2\,C+88\,b^2\,C\right)$$

$$\mathrm{Sin}[2\,(c+dx)]+\frac{21}{160}$$

$$a$$

$$b$$

$$C$$

$$\mathrm{Sin}[3\,(c+dx)]+\frac{1}{40}$$

$$b^2 C \operatorname{Sin}[4(c+dx)]\Big)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\operatorname{Cos}[c+dx])^{5/2}\left(A+C\operatorname{Cos}[c+dx]^2\right)}{\sqrt{\operatorname{Cos}[c+dx]}}, x, 9, 0\right\}$$

$$\frac{a(a+b)\left(432Ab^2+15a^2C+284b^2C\right)\sqrt{1+\operatorname{Cos}[c+dx]}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right], -\frac{a-b}{a+b}\right]}{192bd\sqrt{a+b\operatorname{Cos}[c+dx]}}+$$

$$\frac{1}{96d\sqrt{a+b\operatorname{Cos}[c+dx]}}\left(192a^3A-576a^2Ab+48aAb^2-96Ab^3+59a^3C-322a^2bC+36ab^2C-72b^3C\right)$$

$$\sqrt{1+\operatorname{Cos}[c+dx]}\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right], -\frac{a-b}{a+b}\right]+$$

$$\frac{1}{32bd\sqrt{a+b\operatorname{Cos}[c+dx]}}\left(240a^2Ab^2+64Ab^4-5a^4C+120a^2b^2C+48b^4C\right)\sqrt{1+\operatorname{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticPi}\left[-1, \operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right], -\frac{a-b}{a+b}\right]+$$

$$\frac{\left(16Ab^2+5a^2C+12b^2C\right)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\operatorname{Sin}[c+dx]}{32d}+$$

$$\frac{5aC\sqrt{\operatorname{Cos}[c+dx]}(a+b\operatorname{Cos}[c+dx])^{3/2}\operatorname{Sin}[c+dx]}{24d}+\frac{C\sqrt{\operatorname{Cos}[c+dx]}(a+b\operatorname{Cos}[c+dx])^{5/2}\operatorname{Sin}[c+dx]}{4d}+$$

$$\frac{a\left(432Ab^2+15a^2C+284b^2C\right)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]}{192bd}$$

$$\frac{1}{384d}\left(-\frac{1}{(a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}}\right.$$

$$4a\left(384a^3A+528aAb^2+133a^3C+356ab^2C\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-4\,a\,\left(1152\,a^2\,A\,b+192\,A\,b^3+644\,a^2\,b\,C+144\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(432\,a\,A\,b^2+15\,a^3\,C+284\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{1}{96}\left(48Ab^2+59a^2C+42b^2C\right)\mathrm{Sin}[c+dx]+\frac{17}{48}ab\,C\,\mathrm{Sin}[2(c+dx)]+\frac{1}{16}b^2C\,\mathrm{Sin}[3(c+dx)]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(A+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{3/2}},x,9,0\right\}$$

$$-\frac{(a+b)\left(48a^2A-24Ab^2-33a^2C-16b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{24d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{1}{12d\sqrt{a+b\,\text{Cos}[c+dx]}}a\left(24a^2A+72aAb-72Ab^2-24a^2C+13abC-38b^2C\right)$$

$$\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{5a\left(8Ab^2+a^2C+4b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{4d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{ab(8A-3C)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{4d}-\frac{b(6A-C)\sqrt{\text{Cos}[c+dx]}(a+b\,\text{Cos}[c+dx])^{3/2}\,\text{Sin}[c+dx]}{3d}+$$

$$\frac{2A(a+b\,\text{Cos}[c+dx])^{5/2}\,\text{Sin}[c+dx]}{d\sqrt{\text{Cos}[c+dx]}}-\frac{\left(48a^2A-24Ab^2-33a^2C-16b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{24d}$$

$$\frac{1}{48d}\left(\left(4a\left(-96a^2Ab-24Ab^3-59a^2bC-16b^3C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$4a\left(48a^3A-144aAb^2-48a^3C-76ab^2C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(48\,a^2\,A\,b-24\,A\,b^3-33\,a^2\,b\,C-16\,b^3\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\sqrt{\text{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{13}{12}a b C\,\text{Sin}[c+d x]+\frac{1}{6}b^2 C\,\text{Sin}[2(c+d x)]+2 a^2 A\,\text{Tan}[c+d x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{5/2}\left(A+C\,\text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{5/2}},x,9,0\right\}$$

$$-\frac{a b(a+b)(56 A-27 C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{12 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{1}{6 d\sqrt{a+b\,\text{Cos}[c+d x]}}\left(4 a^3 A+28 a^2 A b+36 a A b^2-12 A b^3+12 a^3 C-36 a^2 b C+3 a b^2 C-6 b^3 C\right)$$

$$\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{b\left(8 A b^2+15 a^2 C+4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{b^2(8 A-C)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 d}+\frac{10 A b(a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{3 d\sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{2 A(a+b\,\text{Cos}[c+d x])^{5/2}\,\text{Sin}[c+d x]}{3 d\,\text{Cos}[c+d x]^{3/2}}-\frac{a b(56 A-27 C)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{12 d}$$

$$\frac{1}{24\,d}\left(-\left(4\,a\,\left(8\,a^3\,A+16\,a\,A\,b^2+24\,a^3\,C+33\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,\left(-56\,a^2\,A\,b+24\,A\,b^3+72\,a^2\,b\,C+12\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(-56\,a\,A\,b^2+27\,a\,b^2\,C\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],\,-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],\,-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\,\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{2}b^2\,C\,\mathrm{Sin}[c+dx]+\frac{14}{3}a\,A\,b\,\mathrm{Tan}[c+dx]+\frac{2}{3}a^2\,A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\Big)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(A+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{7/2}},\,x,\,9,\,0\right\}$$

$$-\frac{(a+b)\left(18a^2A+46Ab^2+30a^2C-15b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{15d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{1}{15d\sqrt{a+b\,\text{Cos}[c+dx]}}2\left(9a^3A+17a^2Ab+23aAb^2+15Ab^3+15a^3C+45a^2bC-45ab^2C\right)$$

$$\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{10ab^2C\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^2A+5Ab^2+5a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{5d\sqrt{\text{Cos}[c+dx]}}+\frac{2Ab(a+b\,\text{Cos}[c+dx])^{3/2}\,\text{Sin}[c+dx]}{3d\,\text{Cos}[c+dx]^{3/2}}+$$

$$\frac{2A(a+b\,\text{Cos}[c+dx])^{5/2}\,\text{Sin}[c+dx]}{5d\,\text{Cos}[c+dx]^{5/2}}-\frac{\left(18a^2A+46Ab^2+30a^2C-15b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{15d}$$

$$\frac{1}{30d}\left(\left(4a\left(-16a^2Ab+16Ab^3-60a^2bC-15b^3C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$4a\left(18a^3A+46aAb^2+30a^3C-90ab^2C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(18\,a^2\,A\,b+46\,A\,b^3+30\,a^2\,b\,C-15\,b^3\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\ \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\ \text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\ \sqrt{-\frac{(a+b)\ \text{Cos}[c+d\,x]\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\ \text{Csc}[c+d\,x]\ \text{EllipticPi}\left[-\frac{a}{b},\ \text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)\Bigg)+\frac{1}{d}$$

$$\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\ \left(\frac{2}{15}\,\text{Sec}[c+d\,x]\ \left(9\,a^2\,A\,\text{Sin}[c+d\,x]+23\,A\,b^2\,\text{Sin}[c+d\,x]+15\,a^2\,C\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{22}{15}\,a\,A\,b\,\text{Sec}[c+d\,x]\ \text{Tan}[c+d\,x]+\frac{2}{5}\,a^2\,A\ \text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{5/2}\ \left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{9/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{2\,b\,(a+b)\,\left(29\,a^2\,A+3\,A\,b^2+49\,a^2\,C\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{21\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{21\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(5\,a^3\,A+29\,a^2\,A\,b+27\,a\,A\,b^2+3\,A\,b^3+7\,a^3\,C+49\,a^2\,b\,C+63\,a\,b^2\,C-21\,b^3\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^3\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(5\,a^2\,A+3\,A\,b^2+7\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{21\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{7\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,b\,\left(29\,a^2\,A+3\,A\,b^2+49\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{21\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{21\,a\,d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$4\,a\,\left(5\,a^4\,A-2\,a^2\,A\,b^2-3\,A\,b^4+7\,a^4\,C+14\,a^2\,b^2\,C\right)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-4\,a\,\left(-29\,a^3\,A\,b-3\,a\,A\,b^3-49\,a^3\,b\,C+21\,a\,b^3\,C\right)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+2\left(-29a^2Ab^2-3Ab^4-49a^2b^2C\right)$$

$$\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\Bigg(\frac{2}{21}\,\text{Sec}[c+d\,x]^2\left(5\,a^2\,A\,\text{Sin}[c+d\,x]+9\,A\,b^2\,\text{Sin}[c+d\,x]+7\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\text{Sec}[c+d\,x]\left(29\,a^2\,A\,b\,\text{Sin}[c+d\,x]+3\,A\,b^3\,\text{Sin}[c+d\,x]+49\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{21\,a}+$$

$$\frac{6}{7}\,a\,A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]+$$

$$\frac{2}{7}\,a^2\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{11/2}},\,x,\,8,\,0\right\}$$

$$-\frac{1}{315\,a^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+189\,a^4\,C+483\,a^2\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{315\,a\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\left(147\,a^4\,A+261\,a^3\,A\,b+279\,a^2\,A\,b^2+155\,a\,A\,b^3-10\,A\,b^4+189\,a^4\,C+357\,a^3\,b\,C+483\,a^2\,b^2\,C+315\,a\,b^3\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\left(49\,a^2\,A+15\,A\,b^2+63\,a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{315\,d\,\text{Cos}[c+d\,x]^{5/2}}+\frac{2\,b\left(163\,a^2\,A+5\,A\,b^2+231\,a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{315\,a\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{10\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{63\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{9\,d\,\text{Cos}[c+d\,x]^{9/2}}+$$

$$\frac{2\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+189\,a^4\,C+483\,a^2\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{315\,a^2\,d\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\sqrt{\text{Cos}[c+d\,x]}\,\left(\frac{1}{\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.$$

$$(a+b)\,\left(\left(-10\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$\left.a\,\left(-10\,A\,b^3+21\,a^3\,(7\,A+9\,C)+15\,a\,b^2\,(11\,A+21\,C)+6\,a^2\,b\,(19\,A+28\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+\left(-10\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)$$

$$\left.(a+b\,\text{Cos}[c+d\,x])\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)+$$

$$\frac{1}{d}\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2}{315}\,\text{Sec}[c+d\,x]^3\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+75\,A\,b^2\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,\left(163\,a^2\,A\,b\,\text{Sin}[c+d\,x]+5\,A\,b^3\,\text{Sin}[c+d\,x]+231\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a}+\frac{1}{315\,a^2}\,2\,\text{Sec}[c+d\,x]$$

$$\left(147\,a^4\,A\,\text{Sin}[c+d\,x]+279\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-10\,A\,b^4\,\text{Sin}[c+d\,x]+189\,a^4\,C\,\text{Sin}[c+d\,x]+483\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\left.\frac{38}{63}\,a\,A\,b\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]+\frac{2}{9}\,a^2\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{13/2}},\,x,\,9,\,0\right\}$$

$$-\frac{1}{693\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,b\,(a+b)\,\left(741\,a^4\,A+51\,a^2\,A\,b^2+8\,A\,b^4+957\,a^4\,C+99\,a^2\,b^2\,C\right)\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{693\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(135\,a^5\,A+741\,a^4\,A\,b+663\,a^3\,A\,b^2+51\,a^2\,A\,b^3+2\,a\,A\,b^4+8\,A\,b^5+165\,a^5\,C+957\,a^4\,b\,C+891\,a^3\,b^2\,C+99\,a^2\,b^3\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,\left(27\,a^2\,A+5\,A\,b^2+33\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{231\,d\,\text{Cos}[c+d\,x]^{7/2}}+\frac{2\,b\,\left(229\,a^2\,A+3\,A\,b^2+297\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{693\,a\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(135\,a^4\,A+205\,a^2\,A\,b^2-4\,A\,b^4+165\,a^4\,C+297\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{693\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{10\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{99\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{11\,d\,\text{Cos}[c+d\,x]^{11/2}}+$$

$$\frac{2\,b\,\left(741\,a^4\,A+51\,a^2\,A\,b^2+8\,A\,b^4+957\,a^4\,C+99\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{693\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{693\,a^3\,d\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)}$$

$$2\sqrt{\frac{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(b\left(8\,A\,b^4+3\,a^2\,b^2\,(17\,A+33\,C)+a^4\,(741\,A+957\,C)\right)\right.$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$b\,(a+b)\left(8\,A\,b^4+3\,a^2\,b^2\,(17\,A+33\,C)+a^4\,(741\,A+957\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\left(-6\,a\,A\,b^3+8\,A\,b^4+15\,a^4\,(9\,A+11\,C)+3\,a^2\,b^2\,(19\,A+33\,C)+a^3\,(606\,A\,b+792\,b\,C)\right)$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{2}{693}\mathrm{Sec}[c+d\,x]^4\left(81\,a^2\,A\,\mathrm{Sin}[c+d\,x]+113\,A\,b^2\,\mathrm{Sin}[c+d\,x]+99\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)+\right.$$

$$\frac{2\,\mathrm{Sec}[c+d\,x]^3\left(229\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+3\,A\,b^3\,\mathrm{Sin}[c+d\,x]+297\,a^2\,b\,C\,\mathrm{Sin}[c+d\,x]\right)}{693\,a}+\frac{1}{693\,a^2}2\,\mathrm{Sec}[c+d\,x]^2$$

$$\left(135\,a^4\,A\,\mathrm{Sin}[c+d\,x]+205\,a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]-4\,A\,b^4\,\mathrm{Sin}[c+d\,x]+165\,a^4\,C\,\mathrm{Sin}[c+d\,x]+297\,a^2\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{1}{693\,a^3}2\,\mathrm{Sec}[c+d\,x]\left(741\,a^4\,A\,b\,\mathrm{Sin}[c+d\,x]+51\,a^2\,A\,b^3\,\mathrm{Sin}[c+d\,x]+8\,A\,b^5\,\mathrm{Sin}[c+d\,x]+957\,a^4\,b\,C\,\mathrm{Sin}[c+d\,x]+\right.$$

$$\left.\left.99\,a^2\,b^3\,C\,\mathrm{Sin}[c+d\,x]\right)+\frac{46}{99}a\,A\,b\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]+\frac{2}{11}a^2\,A\,\mathrm{Sec}[c+d\,x]^5\,\mathrm{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{3/2}\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(24 A b^2+15 a^2 C+16 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{24 b^3 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{a(5 a+2 b) C\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{12 b^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{a\left(8 A b^2+5 a^2 C+4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 b^3 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{5 a C\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{12 b^2 d}+\frac{C\,\text{Cos}[c+d x]^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{3 b d}+$$

$$\frac{\left(24 A b^2+15 a^2 C+16 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b^3 d}$$

$$\frac{1}{48 b^2 d}\left(-\left(4 a\left(24 A b^2+5 a^2 C+16 b^2 C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-$$

$$16 a^2 b C\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(24\,A\,b^2+15\,a^2\,C+16\,b^2\,C\right)\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\right.$$

$$\left.\left.\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\left.\left.\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\right)\right)+\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(-\frac{5\,a\,C\,\text{Sin}[c+d\,x]}{12\,b^2}+\frac{C\,\text{Sin}[2\,(c+d\,x)]}{6\,b}\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$-\frac{3\,a\,(a+b)\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{4\,b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(4\,A\,b-a\,C+2\,b\,C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{2\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(8\,A\,b^2+3\,a^2\,C+4\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{2\,b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d}-\frac{3\,a\,C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{4\,b^2\,d}$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d}-$$

$$\frac{1}{8\,b\,d}\left(-\left(4\,a^2\,C\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(-8\,A\,b-4\,b\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$6aC\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\Bigg\{\frac{A+C\,\mathrm{Cos}[c+dx]^2}{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x,6,0\Bigg\}$$

$$\frac{(a+b)\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d}$$

$$\frac{1}{2\,d}\left(-\left(4\,a\,(2\,A+C)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$2\,C\left(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+dx]^2}{\mathrm{Cos}[c+dx]^{3/2}\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x,6,0\right\}$$

$$-\frac{2A(a+b)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2(A-C)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{4C\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticPi}\left[-1,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2A\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{a\,d\sqrt{\mathrm{Cos}[c+dx]}}$$

$$\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{a d \sqrt{\operatorname{Cos}[c+d x]}} -$$

$$\left((1+\operatorname{Cos}[c+d x])^{3/2}\left(-\frac{A \sqrt{\operatorname{Cos}[c+d x]}}{\sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{C \sqrt{\operatorname{Cos}[c+d x]}}{\sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{2 A b \operatorname{Cos}[c+d x]^{3/2}}{a \sqrt{a+b \operatorname{Cos}[c+d x]}}\right) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^3\right.$$

$$\left(2 A (a+b) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-\right.$$

$$2 a (A-C) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$4 a C \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$2 a A \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]-A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.\left.A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{3}{2}(c+d x)\right]\right)\right) \Big/$$

$$\left(2 a d \sqrt{a+b \operatorname{Cos}[c+d x]}\left(-\frac{1}{4 a (a+b \operatorname{Cos}[c+d x])^{3/2}} b (1+\operatorname{Cos}[c+d x])^{3/2} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \operatorname{Sin}[c+d x]\right.\right.$$

$$\left(2 A (a+b) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-\right.$$

$$2 a (A-C) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$4 a C \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$2 a A \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]-A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+$$

$$\left.A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{3}{2}(c+d x)\right]\right)+\frac{1}{4 a \sqrt{a+b \operatorname{Cos}[c+d x]}} 3 \sqrt{1+\operatorname{Cos}[c+d x]} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \operatorname{Sin}[c+d x]$$

$$\left(2 A (a+b) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] - \right.$$

$$2 a (A-C) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$4 a C \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$2 a A \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right] - A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$\left. A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{3}{2}(c+d x)\right]\right) - \frac{1}{4 a \sqrt{a+b \operatorname{Cos}[c+d x]}} 3 (1+\operatorname{Cos}[c+d x])^{3/2} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^3$$

$$\left(2 A (a+b) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] - \right.$$

$$2 a (A-C) \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$4 a C \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] +$$

$$2 a A \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right] - A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$\left. A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Sin}\left[\frac{3}{2}(c+d x)\right]\right) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] -$$

$$\frac{1}{2 a \sqrt{a+b \operatorname{Cos}[c+d x]}} (1+\operatorname{Cos}[c+d x])^{3/2} \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^3 \left(a A \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} - \right.$$

$$\frac{1}{2} A b \operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} + \frac{3}{2} A b \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{Cos}\left[\frac{3}{2}(c+d x)\right] -$$

$$A (a+b) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right] +$$

$$a\,(A-C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$2\,a\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\frac{a\,A\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-\frac{A\,b\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)}{2\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}+$$

$$\frac{A\,(a+b)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}-$$

$$\frac{a\,(A-C)\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}+$$

$$\frac{2\,a\,C\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}+$$

$$\frac{A\,b\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)\mathrm{Sin}\left[\frac{3}{2}\,(c+d\,x)\right]}{2\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}-\frac{a\,(A-C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\frac{2\,a\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\left.\left.\frac{A\,(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(a\,A+(A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]+b\,B\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(a+b)\,(4\,A\,b+a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(4\,a\,A-a\,B+2\,b\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a\,A\,b-a^2\,B+4\,b^2\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+\frac{(4\,A\,b+a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d}$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(4\,A\,b+3\,a\,B)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(8\,a\,A+4\,b\,B)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2(4Ab+aB)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{a\left(8\,A\,b^2+15\,a^2\,C-7\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,(a-b)\,b^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,A\,b^2+5\,a^2\,C-3\,a\,b\,C+2\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(8\,A\,b^2+15\,a^2\,C+4\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{\left(4\,A\,b^2+5\,a^2\,C-b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b^2\left(a^2-b^2\right)d}-$$

$$\frac{a\left(8\,A\,b^2+15\,a^2\,C-7\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^3\left(a^2-b^2\right)d}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{C\,\text{Sin}[c+d\,x]}{2\,b^2}+\frac{2\left(a\,A\,b^2\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x]\right)}{b^2\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d\,x]\right)}\right)}{d}-$$

$$\frac{1}{8\,(a-b)\,b^2\,(a+b)\,d}\left(-\left(4\,a\left(5\,a^3\,C-5\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(8\,A\,b^3+4\,a^2\,b\,C+4\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(8\,a\,A\,b^2+15\,a^3\,C-7\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A\,b+a\,C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{6\,a\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{b^2\,\left(a^2-b^2\right)\,d}$$

$$-\frac{2\sqrt{\text{Cos}[c+d\,x]}\,\left(A\,b^2\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,(a-b)\,b\,(a+b)\,d}\left(-\left(4\,a\,\left(a^2\,C-b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(2\,a\,A\,b+2\,a\,b\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\;(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;6,\;0\right\}$$

$$-\frac{2\left(A b^2+a^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{a\,(a-b)\,b\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2\,(A+C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{4\,C\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{b\,d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{2\left(A b^2+a^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{a\,b\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$\frac{2\sqrt{\text{Cos}[c+d x]}\left(A b^2\,\text{Sin}[c+d x]+a^2 C\,\text{Sin}[c+d x]\right)}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{1}{a\,(a-b)\,(a+b)\,d}\left(-\left(4\,a\left(a^2 A-A b^2\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-4\,a\,(-a\,A\,b-a\,b\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2\left(-A b^2-a^2 C\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\left(a^2\,A-2\,A\,b^2-a^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A-2\,A\,b-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\text{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\left(a^2\,A-2\,A\,b^2-a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\left(a^2-b^2\right)d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\sqrt{\mathrm{Cos}[c+d\,x]}\left(\left(4\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\left((a+b)\left(\left(2\,A\,b^2+a^2(-A+C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+\right.\right.\right.\right.$$

$$\left.a\left(-2\,A\,b+a(A-C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$\left.\left.\left(2\,A\,b^2+a^2(-A+C)\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(a^2\left(a^2-b^2\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,(1+\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}+\right.$$

$$\left.\frac{2\left(a\,A\left(a^2-b^2\right)+b\left(-2\,A\,b^2+a^2(A-C)\right)\mathrm{Cos}[c+d\,x]\right)\mathrm{Tan}[c+d\,x]}{a^4-a^2\,b^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\,b\left(5\,a^2\,A-8\,A\,b^2-3\,a^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a^3\,(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(a^2\,A-6\,a\,A\,b+8\,A\,b^2+3\,a^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{3\,a^2\,(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,\mathrm{Cos}[c+d\,x]^{3/2}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\left(a^2\,A-4\,A\,b^2-3\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)d\,\mathrm{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{2\,b\left(5\,a^2\,A-8\,A\,b^2-3\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,a^3\left(a^2-b^2\right)d\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{3 a^3 (a-b) (a+b) d}$$

$$\Bigg(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}4 a \left(a^4 A+7 a^2 A b^2-8 A b^4+3 a^4 C-3 a^2 b^2 C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$4 a \left(5 a^3 A b-8 a A b^3-3 a^3 b C\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(5\,a^2\,A\,b^2-8\,A\,b^4-3\,a^2\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{2\,\left(A\,b^4\,\mathrm{Sin}[c+d\,x]+a^2\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{a^3\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}-\frac{10\,A\,b\,\mathrm{Tan}[c+d\,x]}{3\,a^3}+\frac{2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{7/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;7,\;0\right\}$$

$$-\left(2\,\left(3\,a^4\,A+8\,a^2\,A\,b^2-16\,A\,b^4+5\,a^4\,C-10\,a^2\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]\right)\Big/\left(5\,a^4\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\left(2\,\left(3\,a^3\,A-4\,a^2\,A\,b+12\,a\,A\,b^2-16\,A\,b^3+5\,a^3\,C-10\,a^2\,b\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]\right)\Big/\left(5\,a^3\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{2\,\left(A\,b^2+a^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{5/2}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,\left(a^2\,A-6\,A\,b^2-5\,a^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{5\,a^2\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}-$$

$$\frac{2\,b\,\left(3\,a^2\,A-8\,A\,b^2-5\,a^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{5\,a^3\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,\left(3\,a^4\,A+8\,a^2\,A\,b^2-16\,A\,b^4+5\,a^4\,C-10\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{5\,a^4\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{5 a^4 (-a+b) (a+b) d}$$

$$\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}4 a \left(4 a^4 A b+12 a^2 A b^3-16 A b^5+10 a^4 b C-10 a^2 b^3 C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$4 a \left(3 a^5 A+8 a^3 A b^2-16 a A b^4+5 a^5 C-10 a^3 b^2 C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+2\left(3a^4Ab+8a^2Ab^3-16Ab^5+5a^4bC-10a^2b^3C\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Bigg(\frac{2\,\mathrm{Sec}[c+dx]\,\big(3a^2A\,\mathrm{Sin}[c+dx]+11Ab^2\,\mathrm{Sin}[c+dx]+5a^2C\,\mathrm{Sin}[c+dx]\big)}{5a^4}-$$

$$\frac{2\big(Ab^5\,\mathrm{Sin}[c+dx]+a^2b^3C\,\mathrm{Sin}[c+dx]\big)}{a^4\big(a^2-b^2\big)(a+b\,\mathrm{Cos}[c+dx])}-$$

$$\frac{6Ab\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{5a^3}+$$

$$\frac{2A\,\mathrm{Sec}[c+dx]^2\,\mathrm{Tan}[c+dx]}{5a^2}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{3/2}\big(A+C\,\mathrm{Cos}[c+dx]^2\big)}{(a+b\,\mathrm{Cos}[c+dx])^{5/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{\big(8Ab^4-15a^4C+26a^2b^2C-3b^4C\big)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]}{3(a-b)^2b^3(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\big(aAb^2+3Ab^3-5a^3C+3a^2bC+6ab^2C\big)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]}{3(a-b)^2b^2(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}-$$

$$\frac{10aC\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticPi}\Big[-1,\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]}{b^3d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}-$$

$$\frac{2\big(Ab^2+a^2C\big)\,\mathrm{Cos}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{3b\big(a^2-b^2\big)d\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}}+\frac{2\big(a^2Ab^2+3Ab^4-5a^4C+9a^2b^2C\big)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3b^2\big(a^2-b^2\big)^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}-$$

$$\frac{\big(8Ab^4-15a^4C+26a^2b^2C-3b^4C\big)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]}{3b^3\big(a^2-b^2\big)^2d}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2\,(a\,A\,b^2\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x])}{3\,b^2\,(a^2-b^2)\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{4\,(2\,A\,b^4\,\text{Sin}[c+d\,x]-3\,a^4\,C\,\text{Sin}[c+d\,x]+5\,a^2\,b^2\,C\,\text{Sin}[c+d\,x])}{3\,b^2\,(a^2-b^2)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+$$

$$\frac{1}{6\,(a-b)^2\,b^2\,(a+b)^2\,d}$$

$$\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\,\left(2\,a^2\,A\,b^2-2\,A\,b^4+5\,a^4\,C-8\,a^2\,b^2\,C+3\,b^4\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-8\,a\,A\,b^3+4\,a^3\,b\,C-12\,a\,b^3\,C\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+2\left(-8Ab^4+15a^4C-26a^2b^2C+3b^4C\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{2\left(3\,a^2\,A\,b^2+A\,b^4-3\,a^4\,C+7\,a^2\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a\,(a-b)^2\,b^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(3\,a\,A\,b+A\,b^2-2\,a^2\,C+3\,a\,b\,C+3\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,(a-b)^2\,b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{2\left(3\,a^2\,A\,b^2+A\,b^4-3\,a^4\,C+7\,a^2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,(a-b)\,b^2\,(a+b)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(-\frac{2\left(A\,b^2\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,b\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{2\left(-3\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-A\,b^4\,\text{Sin}[c+d\,x]+3\,a^4\,C\,\text{Sin}[c+d\,x]-7\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,a\,b\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}-$$

$$\frac{1}{3\,a\,(a-b)^2\,b\,(a+b)^2\,d}$$

$$\left(-\left(4\,a\,\left(a^2\,A\,b^2-A\,b^4+a^4\,C-a^2\,b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-3\,a^3\,A\,b-a\,A\,b^3-a^3\,b\,C-3\,a\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-3\,a^2\,A\,b^2-A\,b^4+3\,a^4\,C-7\,a^2\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+dx]^2}{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}},x,5,0\right\}$$

$$-\frac{4b\left(3a^2A-Ab^2+2a^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^2A+3aAb-2Ab^2+a^2C+3abC\right)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a(a-b)^2(a+b)\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\left(Ab^2+a^2C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}}-\frac{4b\left(3a^2A-Ab^2+2a^2C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^2(a-b)(a+b)^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2\left(A\,b^2\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,a\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d\,x]\right)^2}+\frac{4\left(3\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-A\,b^4\,\text{Sin}[c+d\,x]+2\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,a^2\left(a^2-b^2\right)^2\left(a+b\,\text{Cos}[c+d\,x]\right)}\right)}{d}+$$

$$\frac{1}{3\,a^2\,(a-b)^2\,(a+b)^2\,d}$$

$$\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(3\,a^4\,A-5\,a^2\,A\,b^2+2\,A\,b^4+a^4\,C-a^2\,b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-4\,a\left(-6\,a^3\,A\,b+2\,a\,A\,b^3-4\,a^3\,b\,C\right)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+2\left(-6a^2Ab^2+2Ab^4-4a^2b^2C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+dx]^2}{\mathrm{Cos}[c+dx]^{3/2}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4-3a^4C-a^2b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\left(2\left(3a^3A-9a^2Ab-6aAb^2+8Ab^3-3a^3C-a^2bC\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{4\left(4a^2Ab^2-2Ab^4+a^4C+a^2b^2C\right)\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4-3a^4C-a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d\sqrt{\text{Cos}[c+dx]}}$$

$$-\frac{1}{3a^3(a-b)^2(a+b)^2d}$$

$$\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(9a^4Ab-17a^2Ab^3+8Ab^5+a^4bC-a^2b^3C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(3a^5A-15a^3Ab^2+8aAb^4-3a^5C-a^3b^2C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d\,x]\ \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\ \text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\ \sqrt{-\frac{(a+b)\ \text{Cos}[c+d\,x]\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\ \text{Csc}[c+d\,x]\ \text{EllipticPi}\left[-\frac{a}{b},\ \text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\ \Bigg(-\frac{2\left(A\,b^3\,\text{Sin}[c+d\,x]+a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{3\,a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}-$$

$$\frac{2\left(9\,a^2\,A\,b^3\,\text{Sin}[c+d\,x]-5\,A\,b^5\,\text{Sin}[c+d\,x]+3\,a^4\,b\,C\,\text{Sin}[c+d\,x]+a^2\,b^3\,C\,\text{Sin}[c+d\,x]\right)}{3\,a^3\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}+$$

$$\frac{2\,A\,\text{Tan}[c+d\,x]}{a^3}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{4 b \left(4 a^4 A-14 a^2 A b^2+8 A b^4-3 a^4 C+a^2 b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{3 a^4 (a-b)^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\left(2 \left(a^4 A-9 a^3 A b+16 a^2 A b^2+12 a A b^3-16 A b^4+3 a^4 C+3 a^3 b C-2 a^2 b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right]\right) \Big/ \left(3 a^3 (a-b)^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{2 \left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{3 a \left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2} (a+b \text{Cos}[c+d x])^{3/2}}+\frac{4 \left(5 a^2 A b^2-3 A b^4+2 a^4 C\right) \text{Sin}[c+d x]}{3 a^2 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2} \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 \left(a^4 A-13 a^2 A b^2+8 A b^4-5 a^4 C+a^2 b^2 C\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 a^3 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2}}-$$

$$\frac{4 b \left(4 a^4 A-14 a^2 A b^2+8 A b^4-3 a^4 C+a^2 b^2 C\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{3 a^4 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}$$

$$\frac{1}{3 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(-\frac{1}{(a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}} 4 a \left(a^6 A+15 a^4 A b^2-32 a^2 A b^4+16 A b^6+3 a^6 C-5 a^4 b^2 C+2 a^2 b^4 C\right)\right.$$

$$\sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x] \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2} (c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \text{Sin}\left[\frac{1}{2} (c+d x)\right]^4-$$

$$4 a \left(8 a^5 A b-28 a^3 A b^3+16 a A b^5-6 a^5 b C+2 a^3 b^3 C\right) \left(\left(\sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2} (c+d x)\right]^2}{-a+b}}\right.\right.$$

$$\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],\,-\frac{2\,a}{-a+b}\Bigg]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\,\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],\,-\frac{2\,a}{-a+b}\Bigg]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\Big(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)\Bigg)+2\,\left(8\,a^4\,A\,b^2-28\,a^2\,A\,b^4+16\,A\,b^6-6\,a^4\,b^2\,C+2\,a^2\,b^4\,C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\Bigg[i\,\mathrm{ArcSinh}\Bigg[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg],\,-\frac{2\,a}{-a-b}\Bigg]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\left(\frac{2\left(A b^4\operatorname{Sin}[c+d x]+a^2 b^2 C\operatorname{Sin}[c+d x]\right)}{3 a^3\left(a^2-b^2\right)(a+b\operatorname{Cos}[c+d x])^2}+\right.$$

$$\frac{4\left(6 a^2 A b^4\operatorname{Sin}[c+d x]-4 A b^6\operatorname{Sin}[c+d x]+3 a^4 b^2 C\operatorname{Sin}[c+d x]-a^2 b^4 C\operatorname{Sin}[c+d x]\right)}{3 a^4\left(a^2-b^2\right)^2(a+b\operatorname{Cos}[c+d x])}-$$

$$\frac{16 A b\operatorname{Tan}[c+d x]}{3 a^4}+$$

$$\left.\frac{2 A\operatorname{Sec}[c+d x]\operatorname{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\operatorname{Cos}[c+d x]^2\right)\operatorname{Sec}[c+d x]^{7/2}}{a+b\operatorname{Cos}[c+d x]},x,9,0\right\}$$

$$-\frac{2\left(3 a^2 A+5 A b^2+5 a^2 C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\operatorname{Sec}[c+d x]}}{5 a^3 d}-$$

$$\frac{2 A b\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\operatorname{Sec}[c+d x]}}{3 a^2 d}-$$

$$\frac{2 b\left(A b^2+a^2 C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\sqrt{\operatorname{Sec}[c+d x]}}{a^3(a+b) d}+$$

$$\frac{2\left(3 a^2 A+5 A b^2+5 a^2 C\right)\sqrt{\operatorname{Sec}[c+d x]}\operatorname{Sin}[c+d x]}{5 a^3 d}-\frac{2 A b\operatorname{Sec}[c+d x]^{3/2}\operatorname{Sin}[c+d x]}{3 a^2 d}+\frac{2 A\operatorname{Sec}[c+d x]^{5/2}\operatorname{Sin}[c+d x]}{5 a d}$$

$$-\frac{1}{30 a^3 d}\left(-\left(2\left(18 a^3 A+40 a A b^2+30 a^3 C\right)\text{Cos}[c+d x]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right.\right.$$

$$\left.(b+a\,\text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\,\text{Sin}[c+d x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2\left(19 a^2 A b+45 A b^3+45 a^2 b C\right)\text{Cos}[c+d x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)(b+a\,\text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\,\text{Sin}[c+d x]\right)\Big/$$

$$\left(a\,(a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2\,(a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}\left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(9 a^2 A b+15 A b^3+15 a^2 b C\right)\text{Cos}[2\,(c+d x)]\,(b+a\,\text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b\,\text{Sec}[c+d x]^2-4 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2\,(2 a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}\right)\text{Sin}[c+d x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]}\left(\frac{2\left(3 a^2 A+5 A b^2+5 a^2 C\right)\text{Sin}[c+d x]}{5 a^3}-\frac{2 A b\,\text{Tan}[c+d x]}{3 a^2}+\frac{2 A\,\text{Sec}[c+d x]\,\text{Tan}[c+d x]}{5 a}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2}}{a+b\,\text{Cos}[c+d x]},x,8,0\right\}$$

$$\frac{2 A b\sqrt{\text{Cos}[c+d x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2 d}+\frac{2 A\sqrt{\text{Cos}[c+d x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{3 a d}+$$

$$\frac{2\left(A b^2+a^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{a^2\,(a+b)\,d}-$$

$$\frac{2 A b\sqrt{\text{Sec}[c+d x]}\,\text{Sin}[c+d x]}{a^2 d}+\frac{2 A\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 a d}$$

$$\frac{1}{6a^2 d}\left(-\frac{16\,a\,A\,\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]}{(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)}+\right.$$

$$\left(2\,\left(2\,a^2\,A+9\,A\,b^2+6\,a^2\,C\right)\,\text{Cos}[c+d\,x]^2\right.$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}\,3\,A\,\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)$$

$$\left.\text{Sin}[c+d\,x]\right)+\frac{\sqrt{\text{Sec}[c+d\,x]}\,\left(-\frac{2\,A\,b\,\text{Sin}[c+d\,x]}{a^2}+\frac{2\,A\,\text{Tan}[c+d\,x]}{3\,a}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}}{a+b\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b\,d}-\frac{2\,a\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b^2\,d}+$$

$$\frac{2\,\left(A\,b^2+a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b^2\,(a+b)\,d}$$

$$\frac{1}{a\,b^2\,d\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{5/2}}\,2\,\text{Csc}[c+d\,x]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-a\,b\,C+a\,b\,C\,\text{Sec}[c+d\,x]^2-a\,b\,C\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{-\text{Tan}[c+d\,x]^2}+\right.$$

$$b\,(A\,b+a\,C)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{-\text{Tan}[c+d\,x]^2}+$$

$$A\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{-\text{Tan}[c+d\,x]^2}+$$

$$\left.a^2\,C\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{-\text{Tan}[c+d\,x]^2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,a\,C\,\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{b^2\,d}+$$

$$\frac{2\left(3\,A\,b^2+3\,a^2\,C+b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,b^3\,d}-$$

$$\frac{2\,a\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{b^3\,(a+b)\,d}+\frac{2\,C\,\text{Sin}[c+d\,x]}{3\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{6\,b\,d}\left(-\left(2\,(6\,A\,b+2\,b\,C)\,\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right.\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\;\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)-$$

$$\left(2\,C\,\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\;\text{Sin}[c+d\,x]\right)\Big/\left((a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)-$$

$$\frac{1}{b^2\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}\,3\,C\,\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\right.$$

$$\left.\left.-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\Bigg)+\frac{C\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[2\,(c+d\,x)]}{3\,b\,d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$\frac{2\left(5\,A\,b^2+5\,a^2\,C+3\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,b^3\,d}-$$

$$\frac{2\,a\left(3\,A\,b^2+3\,a^2\,C+b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,b^4\,d}+$$

$$\frac{2\,a^2\left(A\,b^2+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{b^4\,(a+b)\,d}+\frac{2\,C\,\text{Sin}[c+d\,x]}{5\,b\,d\,\text{Sec}[c+d\,x]^{3/2}}-\frac{2\,a\,C\,\text{Sin}[c+d\,x]}{3\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{30 b^2 d}\left(-\frac{16 a C \operatorname{Cos}[c+d x]^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right](b+a \operatorname{Sec}[c+d x])\sqrt{1-\operatorname{Sec}[c+d x]^2}\operatorname{Sin}[c+d x]}{(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)}+\right.$$

$$\left(2\left(15 A b^2+5 a^2 C+9 b^2 C\right)\operatorname{Cos}[c+d x]^2\left(\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\right)(b+a \operatorname{Sec}[c+d x])\sqrt{1-\operatorname{Sec}[c+d x]^2}\operatorname{Sin}[c+d x]\right)\Big/$$

$$\left(a(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\sqrt{\operatorname{Sec}[c+d x]}\left(2-\operatorname{Sec}[c+d x]^2\right)}$$

$$\left(15 A b^2+15 a^2 C+9 b^2 C\right)\operatorname{Cos}[2(c+d x)](b+a \operatorname{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \operatorname{Sec}[c+d x]^2-4 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d x]}\sqrt{1-\operatorname{Sec}[c+d x]^2}+\right.$$

$$2(2 a-b) b \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d x]}\sqrt{1-\operatorname{Sec}[c+d x]^2}+$$

$$4 a^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d x]}\sqrt{1-\operatorname{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d x]}\sqrt{1-\operatorname{Sec}[c+d x]^2}\right)\operatorname{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\operatorname{Sec}[c+d x]}\left(\frac{C \operatorname{Sin}[c+d x]}{10 b}-\frac{a C \operatorname{Sin}[2(c+d x)]}{3 b^2}+\frac{C \operatorname{Sin}[3(c+d x)]}{10 b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C \operatorname{Cos}[c+d x]^2}{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}[c+d x]^{5/2}}, x, 9, 0\right\}$$

$$-\frac{2 a\left(5 A b^2+5 a^2 C+3 b^2 C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\operatorname{Sec}[c+d x]}}{5 b^4 d}+$$

$$\frac{2\left(21 a^2 A b^2+7 A b^4+21 a^4 C+7 a^2 b^2 C+5 b^4 C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\operatorname{Sec}[c+d x]}}{21 b^5 d}-$$

$$\frac{2 a^3\left(A b^2+a^2 C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\sqrt{\operatorname{Sec}[c+d x]}}{b^5(a+b) d}+$$

$$\frac{2 C \operatorname{Sin}[c+d x]}{7 b d \operatorname{Sec}[c+d x]^{5/2}}-\frac{2 a C \operatorname{Sin}[c+d x]}{5 b^2 d \operatorname{Sec}[c+d x]^{3/2}}+\frac{2\left(7 A b^2+7 a^2 C+5 b^2 C\right)\operatorname{Sin}[c+d x]}{21 b^3 d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$-\frac{1}{210\,b^3\,d}\left(-\left(2\left(-70\,A\,b^3+56\,a^2\,b\,C-50\,b^3\,C\right)\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right.\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(35\,a\,A\,b^2+35\,a^3\,C+13\,a\,b^2\,C\right)\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\right.\right.$$

$$\left.\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\text{Sec}[c+d\,x])\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\Big)\Big/$$

$$\left(a\,(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\left(2-\text{Sec}[c+d\,x]^2\right)}$$

$$\left(105\,a\,A\,b^2+105\,a^3\,C+63\,a\,b^2\,C\right)\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{a\,C\,\text{Sin}[c+d\,x]}{10\,b^2}+\frac{\left(14\,A\,b^2+14\,a^2\,C+13\,b^2\,C\right)\text{Sin}[2\,(c+d\,x)]}{42\,b^3}-\frac{a\,C\,\text{Sin}[3\,(c+d\,x)]}{10\,b^2}+\frac{C\,\text{Sin}[4\,(c+d\,x)]}{28\,b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,9,\,0\right\}$$

$$\frac{b\left(4\,a^2\,A-5\,A\,b^2-a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2\,a^2\,A-5\,A\,b^2-3\,a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\left(a^2-b^2\right)d}+$$

$$\frac{\left(7\,a^2\,A\,b^2-5\,A\,b^4+3\,a^4\,C-a^2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^3\,(a-b)\,(a+b)^2\,d}-$$

$$\frac{b\left(4\,a^2\,A-5\,A\,b^2-a^2\,C\right)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2\,a^2\,A-5\,A\,b^2-3\,a^2\,C\right)\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)d}+\frac{\left(A\,b^2+a^2\,C\right)\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{12 a^3 (-a+b) (a+b) d}$$

$$\left(-\left(2 \left(-28 a^3 A b+40 a A b^3+12 a^3 b C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\right.$$

$$\left(2 \left(-4 a^4 A-44 a^2 A b^2+45 A b^4-12 a^4 C+9 a^2 b^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-12 a^2 A b^2+15 A b^4+3 a^2 b^2 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(-\frac{b \left(4 a^2 A-5 A b^2-a^2 C\right) \text{Sin}[c+d x]}{a^3 \left(a^2-b^2\right)}+\frac{-A b^3 \text{Sin}[c+d x]-a^2 b C \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}+\frac{2 A \text{Tan}[c+d x]}{3 a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^2}, x, 8, 0\right\}$$

$$-\frac{\left(2 a^2 A-3 A b^2-a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 \left(a^2-b^2\right) d}+$$

$$\frac{\left(A b^2+a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a b \left(a^2-b^2\right) d}-$$

$$\frac{\left(5 a^2 A b^2-3 A b^4+a^4 C+a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 (a-b) b (a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-3 A b^2-a^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) d}+\frac{\left(A b^2+a^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{4 a^2 (a-b) (a+b) d}\left(-\left(2 \left(4 a^3 A-8 a A b^2-4 a^3 C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(10 a^2 A b-9 A b^3+a^2 b C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(2 a^2 A b-3 A b^3-a^2 b C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{\left(2 a^2 A-3 A b^2-a^2 C\right) \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right)}+\frac{A b^2 \text{Sin}[c+d x]+a^2 C \text{Sin}[c+d x]}{a \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^2}, x, 7, 0\right\}$$

$$-\frac{\left(A b^2+a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a b \left(a^2-b^2\right) d}-\frac{\left(A b^2-a^2 C+2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^2 \left(a^2-b^2\right) d}+\frac{\left(3 a^2 A b^2-A b^4-a^4 C+3 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a (a-b) b^2 (a+b)^2 d}+\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{4\,a\,(-a+b)\,(a+b)\,d}\left(-\left(2\,(4\,a\,A\,b+4\,a\,b\,C)\,\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+\left(2\,\left(-4\,a^2\,A+3\,A\,b^2-a^2\,C\right)\,\text{Cos}[c+d\,x]^2\,\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)\,(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}\left(A\,b^2+a^2\,C\right)\,\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\,\text{Sin}[c+d\,x]\right)+\frac{\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{\left(A\,b^2+a^2\,C\right)\,\text{Sin}[c+d\,x]}{a\,b\,\left(a^2-b^2\right)}-\frac{A\,b^2\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^2\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{\left(A\,b^2+3\,a^2\,C-2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b^2\,\left(a^2-b^2\right)\,d}+\frac{a\,\left(A\,b^2-3\,a^2\,C+4\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b^3\,\left(a^2-b^2\right)\,d}-\frac{\left(a^2\,A\,b^2+A\,b^4-3\,a^4\,C+5\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\text{Sec}[c+d\,x]}}{(a-b)\,b^3\,(a+b)^2\,d}-\frac{\left(A\,b^2+a^2\,C\right)\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{4\,(a-b)\,b\,(a+b)\,d}\left(-\left(2\,(4\,a\,A\,b+4\,a\,b\,C)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\left(2\,\left(-A\,b^2+a^2\,C-2\,b^2\,C\right)\,\mathrm{Cos}[c+d\,x]^2\,\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\left(1-\mathrm{Cos}[c+d\,x]^2\right)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(2-\mathrm{Sec}[c+d\,x]^2\right)}\left(A\,b^2+3\,a^2\,C-2\,b^2\,C\right)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\,\mathrm{Sin}[c+d\,x]\right)+\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{\left(A\,b^2+a^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(-a^2+b^2\right)}-\frac{-a\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^3\,C\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{a\,\left(A\,b^2+5\,a^2\,C-4\,b^2\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{b^3\,\left(a^2-b^2\right)\,d}+\frac{\left(3\,a^2\,A\,b^2-6\,A\,b^4+15\,a^4\,C-16\,a^2\,b^2\,C-2\,b^4\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,b^4\,\left(a^2-b^2\right)\,d}-\frac{a\,\left(a^2\,A\,b^2-3\,A\,b^4+5\,a^4\,C-7\,a^2\,b^2\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b^4\,(a+b)^2\,d}-\frac{\left(A\,b^2+a^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{\left(3\,A\,b^2+5\,a^2\,C-2\,b^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{12 b^2 (-a+b) (a+b) d}\left(-\left(2 \left(12 A b^3+8 a^2 b C+4 b^3 C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(-3 a A b^2+5 a^3 C-8 a b^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(3 a A b^2+15 a^3 C-12 a b^2 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{a \left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{b^3 \left(a^2-b^2\right)}+\frac{-a^2 A b^2 \text{Sin}[c+d x]-a^4 C \text{Sin}[c+d x]}{b^3 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}+\frac{C \text{Sin}[2 (c+d x)]}{3 b^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{5/2}}, x, 9, 0\right\}$$

$$\frac{\left(15 a^2 A b^2-10 A b^4+35 a^4 C-24 a^2 b^2 C-6 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 b^4 \left(a^2-b^2\right) d}-\frac{a \left(9 a^2 A b^2-12 A b^4+21 a^4 C-20 a^2 b^2 C-4 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 b^5 \left(a^2-b^2\right) d}+\frac{a^2 \left(3 a^2 A b^2-5 A b^4+7 a^4 C-9 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{(a-b) b^5 (a+b)^2 d}-\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}}+\frac{\left(5 A b^2+7 a^2 C-2 b^2 C\right) \text{Sin}[c+d x]}{5 b^2 \left(a^2-b^2\right) d \text{Sec}[c+d x]^{3/2}}-\frac{a \left(3 A b^2+7 a^2 C-4 b^2 C\right) \text{Sin}[c+d x]}{3 b^3 \left(a^2-b^2\right) d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{60\,(a-b)\,b^3\,(a+b)\,d}\Bigg(-\Big(2\,\big(60\,a\,A\,b^3+56\,a^3\,b\,C+4\,a\,b^3\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\Big(2\,\big(15\,a^2\,A\,b^2-30\,A\,b^4+35\,a^4\,C-32\,a^2\,b^2\,C-18\,b^4\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\Big(\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]+$$

$$\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\Big)\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/$$

$$\big(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\big(2-\mathrm{Sec}[c+d\,x]^2\big)}$$

$$\big(45\,a^2\,A\,b^2-30\,A\,b^4+105\,a^4\,C-72\,a^2\,b^2\,C-18\,b^4\,C\big)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Big(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Big)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{\left(10\,a^2\,A\,b^2+10\,a^4\,C-a^2\,b^2\,C+b^4\,C\right)\,\mathrm{Sin}[c+d\,x]}{10\,b^4\,\left(a^2-b^2\right)}+\frac{a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]+a^5\,C\,\mathrm{Sin}[c+d\,x]}{b^4\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}-\frac{2\,a\,C\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^3}+\frac{C\,\mathrm{Sin}[3\,(c+d\,x)]}{10\,b^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\,x,\,10,\,0\right\}$$

$$\frac{b\,\left(24\,a^4\,A-65\,a^2\,A\,b^2+35\,A\,b^4-9\,a^4\,C+3\,a^2\,b^2\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^4\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4-21\,a^4\,C+3\,a^2\,b^2\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{12\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(63\,a^4\,A\,b^2-86\,a^2\,A\,b^4+35\,A\,b^6+15\,a^6\,C-6\,a^4\,b^2\,C+3\,a^2\,b^4\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^4\,(a-b)^2\,(a+b)^3\,d}-$$

$$\frac{b\,\left(24\,a^4\,A-65\,a^2\,A\,b^2+35\,A\,b^4-9\,a^4\,C+3\,a^2\,b^2\,C\right)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,a^4\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(8\,a^4\,A-61\,a^2\,A\,b^2+35\,A\,b^4-21\,a^4\,C+3\,a^2\,b^2\,C\right)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{12\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(A\,b^2+a^2\,C\right)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{\left(13\,a^2\,A\,b^2-7\,A\,b^4+5\,a^4\,C+a^2\,b^2\,C\right)\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(160 a^5 A b - 512 a^3 A b^3 + 280 a A b^5 - 96 a^5 b C + 24 a^3 b^3 C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) + \right.$$

$$\left(2 \left(16 a^6 A + 328 a^4 A b^2 - 641 a^2 A b^4 + 315 A b^6 + 48 a^6 C - 57 a^4 b^2 C + 27 a^2 b^4 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] + \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right]\right) (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) +$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(72 a^4 A b^2 - 195 a^2 A b^4 + 105 A b^6 - 27 a^4 b^2 C + 9 a^2 b^4 C\right) \text{Cos}[2 (c+d x)] (b + a \text{Sec}[c+d x]) \left(-4 a b + 4 a b \text{Sec}[c+d x]^2 - 4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} + 2 (2 a - b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} + 4 a^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} - 2 b^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg) + \frac{1}{d}$$

$$\sqrt{\text{Sec}[c+d x]} \left(-\frac{b \left(24 a^4 A - 65 a^2 A b^2 + 35 A b^4 - 9 a^4 C + 3 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2} + \frac{-A b^3 \text{Sin}[c+d x] - a^2 b C \text{Sin}[c+d x]}{2 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2} + \frac{-15 a^2 A b^3 \text{Sin}[c+d x] + 9 A b^5 \text{Sin}[c+d x] - 7 a^4 b C \text{Sin}[c+d x] + a^2 b^3 C \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])} + \frac{2 A \text{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A + C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^3}, x, 9, 0\right\}$$

$$-\frac{\left(8 a^4 A - 29 a^2 A b^2 + 15 A b^4 - 5 a^4 C - a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^3 \left(a^2-b^2\right)^2 d} +$$

$$\frac{\left(11 a^2 A b^2 - 5 A b^4 + 3 a^4 C + 3 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 b \left(a^2-b^2\right)^2 d} -$$

$$\frac{\left(35 a^4 A b^2 - 38 a^2 A b^4 + 15 A b^6 + 3 a^6 C + 10 a^4 b^2 C - a^2 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^3 (a-b)^2 b (a+b)^3 d} +$$

$$\frac{\left(8 a^4 A - 29 a^2 A b^2 + 15 A b^4 - 5 a^4 C - a^2 b^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2 d} +$$

$$\frac{\left(A b^2 + a^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2} + \frac{\left(11 a^2 A b^2 - 5 A b^4 + 3 a^4 C + 3 a^2 b^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{16 a^3 (a-b)^2 (a+b)^2 d}\left(-\left(2 \left(16 a^5 A-80 a^3 A b^2+40 a A b^4-16 a^5 C-8 a^3 b^2 C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(56 a^4 A b-95 a^2 A b^3+45 A b^5+9 a^4 b C-3 a^2 b^3 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(8 a^4 A b-29 a^2 A b^3+15 A b^5-5 a^4 b C-a^2 b^3 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{1}{d} \sqrt{\text{Sec}[c+d x]} \left(\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4-5 a^4 C-a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2}+\frac{A b^2 \text{Sin}[c+d x]+a^2 C \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+\frac{11 a^2 A b^2 \text{Sin}[c+d x]-5 A b^4 \text{Sin}[c+d x]+3 a^4 C \text{Sin}[c+d x]+3 a^2 b^2 C \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{\left(9 a^2 A b^2-3 A b^4+a^4 C+5 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 b \left(a^2-b^2\right)^2 d}-\frac{\left(7 a^2 A b^2-A b^4-a^4 C+7 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a b^2 \left(a^2-b^2\right)^2 d}+\frac{\left(15 a^4 A b^2-6 a^2 A b^4+3 A b^6-a^6 C+10 a^4 b^2 C+3 a^2 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a^2 (a-b)^2 b^2 (a+b)^3 d}+\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}+\frac{\left(9 a^2 A b^2-3 A b^4+a^4 C+5 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16 a^2 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(-32 a^3 A b+8 a A b^3-24 a^3 b C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\right.$$

$$\left(2 \left(16 a^4 A-19 a^2 A b^2+9 A b^4+5 a^4 C+a^2 b^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-9 a^2 A b^2+3 A b^4-a^4 C-5 a^2 b^2 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{\left(9 a^2 A b^2-3 A b^4+a^4 C+5 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^2 b \left(a^2-b^2\right)^2}-\frac{A b^2 \text{Sin}[c+d x]+a^2 C \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}+\frac{-7 a^2 A b^2 \text{Sin}[c+d x]+A b^4 \text{Sin}[c+d x]+a^4 C \text{Sin}[c+d x]-7 a^2 b^2 C \text{Sin}[c+d x]}{4 a b \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{\left(5 a^2 A b^2+A b^4-3 a^4 C+9 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a b^2 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(3 a^2 A b^2+3 A b^4+3 a^4 C-5 a^2 b^2 C+8 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 b^3 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(3 a^4 A b^2+10 a^2 A b^4-A b^6+3 a^6 C-6 a^4 b^2 C+15 a^2 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a (a-b)^2 b^3 (a+b)^3 d}-$$

$$\frac{\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}}-\frac{\left(5 a^2 A b^2+A b^4-3 a^4 C+9 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a b \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$-\frac{1}{16\,a\,(a-b)^2\,b\,(a+b)^2\,d}\left(-\left(2\left(-16\,a^3\,A\,b-8\,a\,A\,b^3-8\,a^3\,b\,C-16\,a\,b^3\,C\right)\text{Cos}[c+d\,x]^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right.\right.$$

$$\left.(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(9\,a^2\,A\,b^2-3\,A\,b^4+a^4\,C+5\,a^2\,b^2\,C\right)\text{Cos}[c+d\,x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]+\right.\right.$$

$$\left.\left.\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\right)(b+a\,\text{Sec}[c+d\,x])\,\sqrt{1-\text{Sec}[c+d\,x]^2}\,\text{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\text{Cos}[c+d\,x])\,\left(1-\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}\,\left(2-\text{Sec}[c+d\,x]^2\right)}$$

$$\left(-5\,a^2\,A\,b^2-A\,b^4+3\,a^4\,C-9\,a^2\,b^2\,C\right)\text{Cos}[2\,(c+d\,x)]\,(b+a\,\text{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\text{Sec}[c+d\,x]^2-4\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\,\text{EllipticPi}\left[-\frac{a}{b},\,-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\text{Sec}[c+d\,x]}\,\sqrt{1-\text{Sec}[c+d\,x]^2}\right)\text{Sin}[c+d\,x]\right)+$$

$$\frac{1}{d}\sqrt{\text{Sec}[c+d\,x]}\left(\frac{\left(-5\,a^2\,A\,b^2-A\,b^4+3\,a^4\,C-9\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{4\,a\,b^2\,\left(a^2-b^2\right)^2}+\frac{a\,A\,b^2\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x]}{2\,b^2\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{3\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+3\,A\,b^4\,\text{Sin}[c+d\,x]-5\,a^4\,C\,\text{Sin}[c+d\,x]+11\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]}{4\,b^2\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^3\,\text{Sec}[c+d\,x]^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{\left(a^2\,A\,b^2+5\,A\,b^4-15\,a^4\,C+29\,a^2\,b^2\,C-8\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,b^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{a\,\left(a^2\,A\,b^2-7\,A\,b^4-15\,a^4\,C+33\,a^2\,b^2\,C-24\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,b^4\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(a^4\,A\,b^2-10\,a^2\,A\,b^4-3\,A\,b^6-15\,a^6\,C+38\,a^4\,b^2\,C-35\,a^2\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^4\,(a+b)^3\,d}-$$

$$\frac{\left(A\,b^2+a^2\,C\right)\text{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]^{3/2}}+\frac{\left(3\,a^2\,A\,b^2+3\,A\,b^4-5\,a^4\,C+11\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{4\,b^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{16\,(a-b)^2\,b^2\,(a+b)^2\,d}\left(-\left(2\left(-24\,a\,A\,b^3+8\,a^3\,b\,C-32\,a\,b^3\,C\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right](b+a\,\mathrm{Sec}[c+d\,x])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(5\,a^2\,A\,b^2+A\,b^4+5\,a^4\,C-7\,a^2\,b^2\,C+8\,b^4\,C\right)\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\right)(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(-a^2\,A\,b^2-5\,A\,b^4+15\,a^4\,C-29\,a^2\,b^2\,C+8\,b^4\,C\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{\left(-a^2\,A\,b^2-5\,A\,b^4+7\,a^4\,C-13\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{4\,b^3\left(a^2-b^2\right)^2}+\frac{-a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^4\,C\,\mathrm{Sin}[c+d\,x]}{2\,b^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]-7\,a\,A\,b^4\,\mathrm{Sin}[c+d\,x]+9\,a^5\,C\,\mathrm{Sin}[c+d\,x]-15\,a^3\,b^2\,C\,\mathrm{Sin}[c+d\,x]}{4\,b^3\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,9,\,0\right\}$$

$$-\frac{a\left(3\,a^2\,A\,b^2-9\,A\,b^4+35\,a^4\,C-65\,a^2\,b^2\,C+24\,b^4\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,b^4\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(9\,a^4\,A\,b^2-15\,a^2\,A\,b^4+24\,A\,b^6+105\,a^6\,C-223\,a^4\,b^2\,C+128\,a^2\,b^4\,C+8\,b^6\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{12\,b^5\left(a^2-b^2\right)^2 d}$$

$$-$$

$$\frac{a\left(3\,a^4\,A\,b^2-6\,a^2\,A\,b^4+15\,A\,b^6+35\,a^6\,C-86\,a^4\,b^2\,C+63\,a^2\,b^4\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^5\,(a+b)^3\,d}-$$

$$\frac{\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{\left(a^2\,A\,b^2+5\,A\,b^4-7\,a^4\,C+13\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2 d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\left(3\,a^2\,A\,b^2-21\,A\,b^4+35\,a^4\,C-61\,a^2\,b^2\,C+8\,b^4\,C\right)\mathrm{Sin}[c+d\,x]}{12\,b^3\left(a^2-b^2\right)^2 d\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{48\,(a-b)^2\,b^3\,(a+b)^2\,d}\left(-\left(2\left(-24\,a^2\,A\,b^3-48\,A\,b^5+56\,a^4\,b\,C-112\,a^2\,b^3\,C-16\,b^5\,C\right)\operatorname{Cos}[c+d\,x]^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\right.\right.$$

$$\left.(b+a\operatorname{Sec}[c+d\,x])\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\,\operatorname{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(3\,a^3\,A\,b^2+15\,a\,A\,b^4+35\,a^5\,C-73\,a^3\,b^2\,C+56\,a\,b^4\,C\right)\operatorname{Cos}[c+d\,x]^2\left(\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\right)(b+a\operatorname{Sec}[c+d\,x])\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\,\operatorname{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\sqrt{\operatorname{Sec}[c+d\,x]}\left(2-\operatorname{Sec}[c+d\,x]^2\right)}$$

$$\left(9\,a^3\,A\,b^2-27\,a\,A\,b^4+105\,a^5\,C-195\,a^3\,b^2\,C+72\,a\,b^4\,C\right)\operatorname{Cos}[2\,(c+d\,x)]\,(b+a\operatorname{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\operatorname{Sec}[c+d\,x]^2-4\,a\,b\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}+$$

$$4\,a^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\right)\operatorname{Sin}[c+d\,x]\right)+$$

$$\frac{1}{d}\sqrt{\operatorname{Sec}[c+d\,x]}\left(\frac{a\left(3\,a^2\,A\,b^2-9\,A\,b^4+11\,a^4\,C-17\,a^2\,b^2\,C\right)\operatorname{Sin}[c+d\,x]}{4\,b^4\left(a^2-b^2\right)^2}+\frac{a^3\,A\,b^2\operatorname{Sin}[c+d\,x]+a^5\,C\operatorname{Sin}[c+d\,x]}{2\,b^4\left(a^2-b^2\right)(a+b\operatorname{Cos}[c+d\,x])^2}+\right.$$

$$\frac{-5\,a^4\,A\,b^2\operatorname{Sin}[c+d\,x]+11\,a^2\,A\,b^4\operatorname{Sin}[c+d\,x]-13\,a^6\,C\operatorname{Sin}[c+d\,x]+19\,a^4\,b^2\,C\operatorname{Sin}[c+d\,x]}{4\,b^4\left(a^2-b^2\right)^2(a+b\operatorname{Cos}[c+d\,x])}+$$

$$\left.\frac{C\operatorname{Sin}[2\,(c+d\,x)]}{3\,b^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\operatorname{Cos}[c+d\,x]^2}{(a+b\operatorname{Cos}[c+d\,x])^3\operatorname{Sec}[c+d\,x]^{7/2}},\ x,\ 10,\ 0\right\}$$

$$\frac{1}{20\,b^5\left(a^2-b^2\right)^2 d}\left(75\,a^4\,A\,b^2-145\,a^2\,A\,b^4+40\,A\,b^6+315\,a^6\,C-561\,a^4\,b^2\,C+192\,a^2\,b^4\,C+24\,b^6\,C\right)$$

$$\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}-\frac{1}{4\,b^6\left(a^2-b^2\right)^2 d}$$

$$a\left(15\,a^4\,A\,b^2-33\,a^2\,A\,b^4+24\,A\,b^6+63\,a^6\,C-129\,a^4\,b^2\,C+64\,a^2\,b^4\,C+8\,b^6\,C\right)$$

$$\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}+$$

$$\frac{a^2\left(15\,a^4\,A\,b^2-38\,a^2\,A\,b^4+35\,A\,b^6+63\,a^6\,C-150\,a^4\,b^2\,C+99\,a^2\,b^4\,C\right)\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}}{4\,(a-b)^2\,b^6\,(a+b)^3\,d}$$

$$-\frac{\left(A\,b^2+a^2\,C\right)\operatorname{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)d\,(a+b\operatorname{Cos}[c+d\,x])^2\operatorname{Sec}[c+d\,x]^{7/2}}-\frac{\left(a^2\,A\,b^2-7\,A\,b^4+9\,a^4\,C-15\,a^2\,b^2\,C\right)\operatorname{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2 d\,(a+b\operatorname{Cos}[c+d\,x])\operatorname{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{\left(15\,a^2\,A\,b^2-45\,A\,b^4+63\,a^4\,C-101\,a^2\,b^2\,C+8\,b^4\,C\right)\operatorname{Sin}[c+d\,x]}{20\,b^3\left(a^2-b^2\right)^2 d\operatorname{Sec}[c+d\,x]^{3/2}}-\frac{a\left(5\,a^2\,A\,b^2-11\,A\,b^4+21\,a^4\,C-35\,a^2\,b^2\,C+8\,b^4\,C\right)\operatorname{Sin}[c+d\,x]}{4\,b^4\left(a^2-b^2\right)^2 d\sqrt{\operatorname{Sec}[c+d\,x]}}$$

$$\frac{1}{80\,(a-b)^2\,b^4\,(a+b)^2\,d}\Bigg(-\Big(2\,\big(40\,a^3\,A\,b^3-160\,a\,A\,b^5+168\,a^5\,b\,C-256\,a^3\,b^3\,C-32\,a\,b^5\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\Big(2\,\big(25\,a^4\,A\,b^2-35\,a^2\,A\,b^4+40\,A\,b^6+105\,a^6\,C-211\,a^4\,b^2\,C+112\,a^2\,b^4\,C+24\,b^6\,C\big)\,\mathrm{Cos}[c+d\,x]^2$$

$$\Big(\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]+\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\Big)$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\big(2-\mathrm{Sec}[c+d\,x]^2\big)}$$

$$\big(75\,a^4\,A\,b^2-145\,a^2\,A\,b^4+40\,A\,b^6+315\,a^6\,C-561\,a^4\,b^2\,C+192\,a^2\,b^4\,C+24\,b^6\,C\big)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Big(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Big)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(-\frac{\big(35\,a^4\,A\,b^2-65\,a^2\,A\,b^4+75\,a^6\,C-107\,a^4\,b^2\,C+4\,a^2\,b^4\,C-2\,b^6\,C\big)\,\mathrm{Sin}[c+d\,x]}{20\,b^5\,\big(a^2-b^2\big)^2}+$$

$$\frac{-a^4\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^6\,C\,\mathrm{Sin}[c+d\,x]}{2\,b^5\,\big(a^2-b^2\big)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{9\,a^5\,A\,b^2\,\mathrm{Sin}[c+d\,x]-15\,a^3\,A\,b^4\,\mathrm{Sin}[c+d\,x]+17\,a^7\,C\,\mathrm{Sin}[c+d\,x]-23\,a^5\,b^2\,C\,\mathrm{Sin}[c+d\,x]}{4\,b^5\,\big(a^2-b^2\big)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}-$$

$$\frac{a\,C\,\mathrm{Sin}[2\,(c+d\,x)]}{b^4}+\frac{C\,\mathrm{Sin}[3\,(c+d\,x)]}{10\,b^3}\Bigg)$$

Incorrect antiderivative:

$$\Big\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\big(A+C\,\mathrm{Cos}[c+d\,x]^2\big)\,\mathrm{Sec}[c+d\,x]^{11/2},\,x,\,9,\,0\Big\}$$

$$-\frac{1}{315\,a^4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+189\,a^4\,C-42\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(147\,a^4\,A+111\,a^3\,A\,b-24\,a^2\,A\,b^2-4\,a\,A\,b^3-16\,A\,b^4+189\,a^4\,C+147\,a^3\,b\,C-42\,a^2\,b^2\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,b\,\left(13\,a^2\,A+8\,A\,b^2+21\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a^3\,d}+$$

$$\frac{2\,\left(49\,a^2\,A-6\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,a^2\,d}+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}+$$

$$\frac{2\,\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+189\,a^4\,C-42\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^4\,d}$$

$$\frac{1}{315\,a^4\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(-16\,A\,b^4-6\,a^2\,b^2\,(4\,A+7\,C)+21\,a^4\,(7\,A+9\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(\left(-16\,A\,b^4-6\,a^2\,b^2\,(4\,A+7\,C)+21\,a^4\,(7\,A+9\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a\,\left(-12\,a\,A\,b^2+16\,A\,b^3+6\,a^2\,b\,(6\,A+7\,C)-21\,a^3\,(7\,A+9\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+189\,a^4\,C-42\,a^2\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{315\,a^4}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]-6\,A\,b^2\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(13\,a^2\,A\,b\,\text{Sin}[c+d\,x]+8\,A\,b^3\,\text{Sin}[c+d\,x]+21\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^3}+$$

$$\left.\frac{2\,A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{63\,a}+\frac{2}{9}\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,b\,(a+b)\,\left(19\,a^2\,A+8\,A\,b^2+35\,a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+19\,a^2\,A\,b+2\,a\,A\,b^2+8\,A\,b^3+35\,a^3\,C+35\,a^2\,b\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{2\,\left(25\,a^2\,A-4\,A\,b^2+35\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{105\,a^2\,d}+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,b\,\left(19\,a^2\,A+8\,A\,b^2+35\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^3\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{2\,b\,\left(19\,a^2\,A+8\,A\,b^2+35\,a^2\,C\right)\mathrm{Sin}[c+d\,x]}{105\,a^3}+\frac{2\,\mathrm{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\mathrm{Sin}[c+d\,x]-4\,A\,b^2\,\mathrm{Sin}[c+d\,x]+35\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{105\,a^2}+\right.$$

$$\left.\frac{2\,A\,b\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{35\,a}+\frac{2}{7}\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\right)+$$

$$\left(2\left(-\frac{19\,A\,b}{105\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,A\,b^3}{105\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{b\,C}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\,a\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{17\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{8\,A\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a^3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{19\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\left.\frac{8\,A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{105\,a^3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,C\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\right.$$

$$\left(-2\,b\,(a+b)\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 a A b+8 A b^2+5 a^2 (5 A+7 C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$b\left(8 A b^2+a^2 (19 A+35 C)\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(105 a^3 d\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\Bigg(\frac{1}{105 a^3 (a+b \text{Cos}[c+d x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\ \text{Sin}[c+d x]\Bigg(-2 b (a+b)\left(8 A b^2+a^2 (19 A+35 C)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 a A b+8 A b^2+\right.$$

$$\left.5 a^2 (5 A+7 C)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$b\left(8 A b^2+a^2 (19 A+35 C)\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)-$$

$$\frac{1}{105 a^3\sqrt{a+b \text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(-2 b (a+b)\left(8 A b^2+a^2 (19 A+35 C)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a (a+b)\left(-6 a A b+8 A b^2+5 a^2 (5 A+7 C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$b\left(8 A b^2+a^2 (19 A+35 C)\right)\text{Cos}[c+d x](a+b \text{Cos}[c+d x])\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+$$

$$\frac{1}{105\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\Bigg(-\frac{1}{2}\,b\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$b\,(a+b)\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+5\,a^2\,(5\,A+7\,C)\right)$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,b\,(a+b)\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+5\,a^2\,(5\,A+7\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$b^2\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$b\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$b\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+5\,a^2\,(5\,A+7\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{b\,(a+b)\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{105\,a^3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$\left(-2\,b\,(a+b)\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+5\,a^2\,(5\,A+7\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.b\,\left(8\,A\,b^2+a^2\,(19\,A+35\,C)\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{7/2},\,x,\,7,\,0\right\}$$

$$-\frac{1}{15\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(9\,a^2\,A-2\,A\,b^2+15\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{15\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(9\,a^2\,A+7\,a\,A\,b-2\,A\,b^2+15\,a^2\,C+15\,a\,b\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(9\,a^2\,A-2\,A\,b^2+15\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,a^2\,d}$$

$$\frac{1}{15 a^2 d \sqrt{\frac{\text{Cos}[c+d x]}{(1+\text{Cos}[c+d x])^2}} \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{\text{Sec}[c+d x]}{1+\text{Sec}[c+d x]}}} \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]} \left((a+b)\left(\left(2 A b^2-3 a^2(3 A+5 C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+\right.\right.$$

$$\left. a(9 a A-2 A b+15 a C) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right)$$

$$\left(\text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} \text{Sec}[c+d x]+$$

$$\left.\left(2 A b^2-3 a^2(3 A+5 C)\right) \text{Cos}[c+d x](a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \left(\frac{2\left(9 a^2 A-2 A b^2+15 a^2 C\right) \text{Sin}[c+d x]}{15 a^2}+\frac{2 A b \text{Tan}[c+d x]}{15 a}+\frac{2}{5} A \text{Sec}[c+d x] \text{Tan}[c+d x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b \text{Cos}[c+d x]}\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}, x, 8, 0\right\}$$

$$-\frac{1}{d \sqrt{a+b \text{Cos}[c+d x]}}(a+b)(2 A-C) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}+$$

$$\frac{1}{d \sqrt{a+b \text{Cos}[c+d x]}} 2(a A+A b-a C) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}+$$

$$\frac{2 a C \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 A \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{d}-\frac{(2 A-C) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{d}+$$

$$\frac{1}{d\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}} \sqrt{\frac{1}{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\left(-2 a A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+a C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+4 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-\right.$$

$$2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+2 a A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-a C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-2 a C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-2 a C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b)(2 A-C) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2(A b+a(A-C)) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b \operatorname{Cos}[c+d x]}\left(A+C \operatorname{Cos}[c+d x]^2\right) \sqrt{\operatorname{Sec}[c+d x]}, x, 8, 0\right\}$$

$$\frac{a(a+b) C \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}}{4 b d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{1}{2 d \sqrt{a+b \operatorname{Cos}[c+d x]}}(4 a A-4 A b+a C-2 b C) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{1}{2 b d \sqrt{a+b \operatorname{Cos}[c+d x]}}\left(8 A b^2-a^2 C+4 b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]}$$

$$\sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1,\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{C \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{2 d \sqrt{\operatorname{Sec}[c+d x]}}+\frac{a C \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$\frac{C\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[2\,(c+d\,x)]}{4\,d}+$$

$$\Bigg(-a^2\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]-a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]+2\,a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^3+a^2\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5-$$

$$a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5+16\,A\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}-$$

$$2\,a^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+8\,b^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$16\,A\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}-2\,a^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$8\,b^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}-a\,(a+b)\,C\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\Big(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\Big)\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$2\,b\,(2\,b\,(2\,A+C)-a\,(4\,A+C))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(4\,b\,d\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,9,\,0\right\}$$

$$\frac{1}{24\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\,\left(24\,A\,b^2-3\,a^2\,C+16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,-$$

$$\frac{1}{12\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\,(24\,A\,b-a\,C+14\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{1}{4\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$a\,\left(8\,A\,b^2+a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+\,\frac{C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Sec}[c+d\,x]^{3/2}}\,+$$

$$\frac{a\,C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{12\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}\,+\,\frac{\left(24\,A\,b^2-3\,a^2\,C+16\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,C\,\mathrm{Sin}[c+d\,x]+\frac{a\,C\,\mathrm{Sin}[2\,(c+d\,x)]}{24\,b}+\frac{1}{12}\,C\,\mathrm{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\frac{1}{24\,b^2\,d\,\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-48\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$6\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-32\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$48\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-6\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-48\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$6\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(-24\,A\,b^2+3\,a^2\,C-16\,b^2\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,a\,b\,(-24\,A\,b+(a-14\,b)\,C)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Sec}[c+d\,x]^{3/2}},\,x,\,10,\,0\right\}$$

$$\frac{1}{192\,b^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}a\,(a+b)\left(48\,A\,b^2+15\,a^2\,C+28\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{1}{96\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(48\,a\,A\,b^2-96\,A\,b^3-5\,a^3\,C-2\,a^2\,b\,C+36\,a\,b^2\,C-72\,b^3\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}-\frac{1}{32\,b^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(16\,a^2\,A\,b^2-64\,A\,b^4+5\,a^4\,C+8\,a^2\,b^2\,C-48\,b^4\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{4\,d\,\mathrm{Sec}[c+d\,x]^{5/2}}+$$

$$\frac{a\,C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{24\,b\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{\left(48\,A\,b^2-5\,a^2\,C+36\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{96\,b^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{a\left(48\,A\,b^2+15\,a^2\,C+28\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{192\,b^3\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{a\,C\,\mathrm{Sin}[c+d\,x]}{96\,b}+\frac{\left(48\,A\,b^2-5\,a^2\,C+48\,b^2\,C\right)\mathrm{Sin}[2\,(c+d\,x)]}{192\,b^2}+\frac{a\,C\,\mathrm{Sin}[3\,(c+d\,x)]}{96\,b}+\frac{1}{32}\,C\,\mathrm{Sin}[4\,(c+d\,x)]\right)}{d}+$$

$$\Bigg(-48\,a^2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-48\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,a^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$15\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-28\,a^2\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-28\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+96\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$30\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+56\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+48\,a^2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-48\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$15\,a^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+28\,a^2\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-28\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$96\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+384\,A\,b^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-48\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$288\,b^4\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-96\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$384\,A\,b^4\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 30\,a^4\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$48\,a^2\,b^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 288\,b^4\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$a\,(a+b)\left(48\,A\,b^2+15\,a^2\,C+28\,b^2\,C\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2\,b\left(5\,a^3\,C+2\,a^2\,b\,C-12\,a\,b^2\,(4\,A+3\,C)+24\,b^3\,(4\,A+3\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(192\,b^3\,d\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{11/2},\,x,\,9,\,0\right\}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+189\,a^4\,C+63\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(147\,a^4\,A+186\,a^3\,A\,b+33\,a^2\,A\,b^2+2\,a\,A\,b^3+8\,A\,b^4+189\,a^4\,C+252\,a^3\,b\,C+63\,a^2\,b^2\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{4\,b\,\left(44\,a^2\,A-2\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a^2\,d}+$$

$$\frac{2\,\left(49\,a^2\,A+3\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,a\,d}+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{21\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}+$$

$$\frac{2\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+189\,a^4\,C+63\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^3\,d}$$

$$\frac{1}{315\,a^3\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(8\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(\left(8\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$\left.a\,\left(-6\,a\,A\,b^2+8\,A\,b^3+21\,a^3\,(7\,A+9\,C)+a^2\,(39\,A\,b+63\,b\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+189\,a^4\,C+63\,a^2\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{315\,a^3}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{4\,\text{Sec}[c+d\,x]\,\left(44\,a^2\,A\,b\,\text{Sin}[c+d\,x]-2\,A\,b^3\,\text{Sin}[c+d\,x]+63\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+$$

$$\left.\frac{20}{63}\,A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]+\frac{2}{9}\,a\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{9/2},\,x,\,8,\,0\right\}$$

$$-\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,b\,(a+b)\,\left(41\,a^2\,A-3\,A\,b^2+70\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{105\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+82\,a^2\,A\,b+51\,a\,A\,b^2-6\,A\,b^3+35\,a^3\,C+140\,a^2\,b\,C+105\,a\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(25\,a^2\,A+3\,A\,b^2+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a\,d}+$$

$$\frac{6\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{4\,b\,\left(41\,a^2\,A-3\,A\,b^2+70\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^2\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(-\frac{4\,b\,\left(-41\,a^2\,A+3\,A\,b^2-70\,a^2\,C\right)\,\text{Sin}[c+d\,x]}{105\,a^2}+\frac{2\,\text{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{105\,a}+\right.$$

$$\left.\frac{16}{35}\,A\,b\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]+\frac{2}{7}\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\right)+$$

$$\left(4\,\left(-\frac{82\,a\,A\,b}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,b^3}{35\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{4\,a\,b\,C}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{5\,a^2\,A\,\sqrt{\text{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{31\,A\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,b^4\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{a^2\,C\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b^2\,C\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{82\,A\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{105\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\left.\frac{2\,A\,b^4\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{4\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\left(2\,b\,(a+b)\,\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\,\left(-6\,A\,b^2+5\,a^2\,(5\,A+7\,C)+3\,a\,b\,(19\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(\frac{1}{105\,a^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\,\Bigg(2\,b\,(a+b)\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\left(-6\,A\,b^2+5\,a^2\,(5\,A+7\,C)+3\,a\,b\,(19\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,(a+b)\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\left(-6\,A\,b^2+5\,a^2\,(5\,A+7\,C)+3\,a\,b\,(19\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(3Ab^2-a^2(41A+70C)\right)\mathrm{Cos}[c+dx]\,(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\Bigg)+$$

$$\frac{1}{105a^2\sqrt{a+b\,\mathrm{Cos}[c+dx]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}4\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]}$$

$$\Bigg(\frac{1}{2}b\left(3Ab^2-a^2(41A+70C)\right)\mathrm{Cos}[c+dx]\,(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^4+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}}$$

$$b(a+b)\left(3Ab^2-a^2(41A+70C)\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\mathrm{Cos}[c+dx]\,\mathrm{Sin}[c+dx]}{(1+\mathrm{Cos}[c+dx])^2}-\frac{\mathrm{Sin}[c+dx]}{1+\mathrm{Cos}[c+dx]}\right)+\frac{1}{2\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}}a(a+b)\left(-6Ab^2+5a^2(5A+7C)+3ab(19A+35C)\right)$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+dx]\,\mathrm{Sin}[c+dx]}{(1+\mathrm{Cos}[c+dx])^2}-\right.$$

$$\left.\frac{\mathrm{Sin}[c+dx]}{1+\mathrm{Cos}[c+dx]}\right)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}}b(a+b)\left(3Ab^2-a^2(41A+70C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}+\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sin}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])^2}\right)+$$

$$\frac{1}{2\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}}a(a+b)\left(-6Ab^2+5a^2(5A+7C)+3ab(19A+35C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}+\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sin}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])^2}\right)-$$

$$b^2\left(3Ab^2-a^2(41A+70C)\right)\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sin}[c+dx]\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]-$$

$$b\left(3Ab^2-a^2(41A+70C)\right)(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sin}[c+dx]\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]+$$

$$b\left(3Ab^2-a^2(41A+70C)\right)\mathrm{Cos}[c+dx]\,(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2+$$

$$\frac{a\,(a+b)\left(-6\,A\,b^2+5\,a^2\,(5\,A+7\,C)+3\,a\,b\,(19\,A+35\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{b\,(a+b)\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$2\left(2\,b\,(a+b)\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\left(-6\,A\,b^2+5\,a^2\,(5\,A+7\,C)+3\,a\,b\,(19\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\left(3\,A\,b^2-a^2\,(41\,A+70\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{7/2},\,x,\,9,\,0\right\}$$

$$-\frac{1}{5\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(3\,a^2\,A+A\,b^2+5\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{5\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(3\,a^2\,A+4\,a\,A\,b+A\,b^2+5\,a^2\,C+10\,a\,b\,C-5\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{4\,b^2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,+$$

$$\frac{2\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(3\,a^2\,A+A\,b^2+5\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{5\,a\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(3\,a^2\,A+A\,b^2+5\,a^2\,C\right)\,\text{Sin}[c+d\,x]}{5\,a}+\frac{4}{5}\,A\,b\,\text{Tan}[c+d\,x]+\frac{2}{5}\,a\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)}{d}\,+$$

$$\left(2\,\left(-\frac{3\,a^2\,A}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{A\,b^2}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{a^2\,C}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{b^2\,C}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{a\,A\,b\,\sqrt{\text{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{A\,b^3\,\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{a\,b\,C\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{3\,a\,A\,b\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\left.\frac{A\,b^3\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{5\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{a\,b\,C\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(-20\,a\,b^2\,C\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,(a+b)\,\left(A\,b^2+a^2\,(3\,A+5\,C)\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,\left(b^2\,(A-5\,C)+2\,a\,b\,(2\,A+5\,C)+a^2\,(3\,A+5\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$3\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$5\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-20\,a\,b^2\,C\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+6\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$2\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+10\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+3\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+5\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-5\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)\Bigg)\Bigg/$$

$$\Bigg(5\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}$$

$$\Bigg(\frac{1}{5\,a\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}}\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]$$

$$\Bigg(-20\,a\,b^2\,C\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$2\,(a+b)\,\left(A\,b^2+a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,\left(b^2\,(A-5\,C)+2\,a\,b\,(2\,A+5\,C)+a^2\,(3\,A+5\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$3\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$5 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 5 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 20 a b^2 C \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 + 6 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 +$$

$$2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 10 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 3 a^3 A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 3 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 5 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 5 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5\Bigg) -$$

$$\frac{1}{5 a \sqrt{a+b \operatorname{Cos}[c+d x]} \left(\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}} 3 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\Bigg(-20 a b^2 C \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] -$$

$$2(a+b)\left(A b^2 + a^2(3 A + 5 C)\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 + 2 a\left(b^2(A-5 C) + 2 a b(2 A + 5 C) + a^2(3 A + 5 C)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 -$$

$$3 a^3 A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 3 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] -$$

$$5 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 5 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 20 a b^2 C \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 + 6 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 +$$

$$2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 10 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 3 a^3 A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 3 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 5 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 5 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5\Bigg) +$$

$$\frac{1}{5 a \sqrt{a+b \operatorname{Cos}[c+d x]} \left(\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\left(-\frac{3}{2} a^3 A \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-\frac{3}{2} a^2 A b \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-\frac{1}{2} a A b^2 \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-\right.$$

$$\frac{1}{2} A b^3 \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-\frac{5}{2} a^3 C \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-\frac{5}{2} a^2 b C \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2-$$

$$\frac{10 a b^2 C \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}-$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}}(a+b)\left(A b^2+a^2(3 A+5 C)\right)\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)+$$

$$\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}} a\left(b^2(A-5 C)+2 a b(2 A+5 C)+a^2(3 A+5 C)\right)\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(\frac{\operatorname{Cos}[c+d x] \operatorname{Sin}[c+d x]}{(1+\operatorname{Cos}[c+d x])^2}-\frac{\operatorname{Sin}[c+d x]}{1+\operatorname{Cos}[c+d x]}\right)-$$

$$\frac{10 a b^2 C \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}-$$

$$\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}(a+b)\left(A b^2+a^2(3 A+5 C)\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(-\frac{b \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}+\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sin}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])^2}\right)+\frac{1}{\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}}$$

$$a\left(b^2(A-5 C)+2 a b(2 A+5 C)+a^2(3 A+5 C)\right)\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)-2(a+b)\left(A b^2+a^2(3A+5C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]+2a\left(b^2(A-5C)+2ab(2A+5C)+a^2(3A+5C)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$20ab^2C\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]+9a^2Ab\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+$$

$$3Ab^3\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+15a^2bC\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

$$10ab^2C\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}10ab^2C\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2+\frac{15}{2}a^3A\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4-\frac{15}{2}a^2Ab\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4+$$

$$\frac{5}{2}aAb^2\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4-\frac{5}{2}Ab^3\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4+$$

$$\frac{25}{2}a^3C\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4-\frac{25}{2}a^2bC\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4+$$

$$\frac{a\left(b^2(A-5C)+2ab(2A+5C)+a^2(3A+5C)\right)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^4}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}}+$$

$$\frac{10\,a\,b^2\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{10\,a\,b^2\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\left(A\,b^2+a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{5\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$\Bigg(-20\,a\,b^2\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$2\,(a+b)\left(A\,b^2+a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\left(b^2\,(A-5\,C)+2\,a\,b\,(2\,A+5\,C)+a^2\,(3\,A+5\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$3\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$5\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-20\,a\,b^2\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+6\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+10 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+3 a^3 A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-3 a^2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+5 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-5 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5\Bigg)$$

$$\left(-\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right] \operatorname{Sec}[c+d x] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]+\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b \operatorname{Cos}[c+d x])^{3/2}\left(A+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^{5/2}, x, 9, 0\right\}$$

$$-\frac{1}{3 d \sqrt{a+b \operatorname{Cos}[c+d x]}} b(a+b)(8 A-3 C) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{1}{3 d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2\left(a^2 A+4 a A b+3 A b^2+3 a^2 C-6 a b C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{6 a b C \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticPi}\left[-1, \operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}}{d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{2 A b \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{d}+$$

$$\frac{2 A(a+b \operatorname{Cos}[c+d x])^{3/2} \operatorname{Sec}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{3 d}-\frac{b(8 A-3 C) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}\left(\frac{8}{3} A b \operatorname{Sin}[c+d x]+\frac{2}{3} a A \operatorname{Tan}[c+d x]\right)}{d}+$$

$$\left(\left(-\frac{4 a A b}{3 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}+\frac{2 a b C}{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}+\frac{a^2 A \sqrt{\operatorname{Sec}[c+d x]}}{3 \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{A b^2 \sqrt{\operatorname{Sec}[c+d x]}}{3 \sqrt{a+b \operatorname{Cos}[c+d x]}}+\right.\right.$$

$$\frac{a^2 C \sqrt{\text{Sec}[c+d x]}}{\sqrt{a+b \text{Cos}[c+d x]}}+\frac{b^2 C \sqrt{\text{Sec}[c+d x]}}{2 \sqrt{a+b \text{Cos}[c+d x]}}-\frac{4 A b^2 \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{3 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{b^2 C \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{2 \sqrt{a+b \text{Cos}[c+d x]}}\Bigg)$$

$$\sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]} \Bigg(-2 b (a+b) (8 A-3 C) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+4 \left(3 A b^2+a^2 (A+3 C)+a (4 A b-6 b C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2-$$

$$b \Bigg(36 a C \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+(8 A-3 C) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg)\Bigg)\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3 d \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2} \Bigg(\frac{1}{6 (a+b \text{Cos}[c+d x])^{3/2} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2}}$$

$$b \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]} \text{Sin}[c+d x] \Bigg(-2 b (a+b) (8 A-3 C) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+4 \left(3 A b^2+a^2 (A+3 C)+a (4 A b-6 b C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2-$$

$$b \Bigg(36 a C \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+(8 A-3 C) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg)\Bigg)-$$

$$\frac{1}{2 \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2}} \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]} \text{Tan}\left[\frac{1}{2} (c+d x)\right]$$

$$\left(-2 b (a+b) (8 A-3 C) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+4 \left(3 A b^2+a^2 (A+3 C)+a (4 A b-6 b C)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2-$$

$$b \left(36 a C \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2+(8 A-3 C) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\right)\right)+$$

$$\frac{1}{3 \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2}} \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\left(-\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}} b (a+b) (8 A-3 C) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

$$2 \left(3 A b^2+a^2 (A+3 C)+a (4 A b-6 b C)\right) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}}$$

$$b (a+b) (8 A-3 C) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2$$

$$\left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right)+\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}}$$

$$2\left(3Ab^2+a^2(A+3C)+a(4Ab-6bC)\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\left(-\frac{b\,\text{Sin}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}+\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sin}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])^2}\right)-$$

$$2b(a+b)(8A-3C)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]+4\left(3Ab^2+a^2(A+3C)+a(4Ab-6bC)\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]+$$

$$\frac{2\left(3Ab^2+a^2(A+3C)+a(4Ab-6bC)\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{Sec}\left[\frac{1}{2}(c+dx)\right]^4}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}-$$

$$\frac{b(a+b)(8A-3C)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{Sec}\left[\frac{1}{2}(c+dx)\right]^4\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}-$$

$$b\left(\frac{1}{2}(8A-3C)\,\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^6+\frac{1}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}\right.$$

$$18aC\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\ \text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\left(\frac{\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{(1+\text{Cos}[c+dx])^2}-\frac{\text{Sin}[c+dx]}{1+\text{Cos}[c+dx]}\right)+\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}}$$

$$18aC\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\ \text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+36\,a\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-b\,(8\,A-3\,C)\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-(8\,A-3\,C)$$

$$(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,(8\,A-3\,C)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{18\,a\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}\Bigg)\Bigg)\Bigg)+$$

$$\frac{1}{6\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}}$$

$$\Bigg(-2\,b\,(a+b)\,(8\,A-3\,C)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+4\left(3\,A\,b^2+a^2\,(A+3\,C)+a\,(4\,A\,b-6\,b\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$b\Bigg(36\,a\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+(8\,A-3\,C)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2},\,x,\,9,\,0\right\}$$

$$-\frac{1}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,a\,(a+b)\,(8\,A-5\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(4\,a^2\,A+8\,a\,A\,b-4\,A\,b^2-4\,a^2\,C+a\,b\,C-2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(8\,A\,b^2+3\,a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;-\;\frac{b\,(4\,A-C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{\text{Sec}[c+d\,x]}}\;+$$

$$\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}\;-\;\frac{a\,(8\,A-5\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(2\,a\,A\,\text{Sin}[c+d\,x]+\frac{1}{4}\,b\,C\,\text{Sin}[2\,(c+d\,x)]\right)}{d}\;+$$

$$\Bigg(8\,a^2\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+8\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$16\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+10\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-8\,a^2\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+8\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$5\,a^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-5\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,A\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$6\,a^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+8\,b^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$16\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+6\,a^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$8\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+a\,(a+b)\,(8\,A-5\,C)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$2\left(4\,a^2\,(A-C)-2\,b^2\,(2\,A+C)+a\,b\,(8\,A+C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(4\,d\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{24\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\,(24\,a\,A-48\,A\,b+7\,a\,C-26\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{4\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\left(24\,A\,b^2-a^2\,C+12\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+\;\frac{a\,C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}\;+$$

$$\frac{C\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{12}\,b\,C\,\text{Sin}[c+d\,x]+\frac{7}{24}\,a\,C\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b\,C\,\text{Sin}[3\,(c+d\,x)]\right)}{d}\;+$$

$$\frac{1}{24\,b\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\Bigg(24\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+24\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$3\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-48\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$6\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-32\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-24\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$3\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$144\,a\,A\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+6\,a^3\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$72\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-144\,a\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6\,a^3\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-72\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)\left(24\,A\,b^2+3\,a^2\,C+16\,b^2\,C\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$2\,a\,b\,(24\,a\,A-48\,A\,b+7\,a\,C-26\,b\,C)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+C\,\text{Cos}[c+d x]^2\right)}{\sqrt{\text{Sec}[c+d x]}},\ x,\ 10,\ 0\right\}$$

$$\frac{1}{64 b^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}} a (a+b) \left(80 A b^2-3 a^2 C+52 b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}-\frac{1}{32 b d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$\left(64 a^2 A b-16 a A b^2+32 A b^3-a^3 C+38 a^2 b C-12 a b^2 C+24 b^3 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{1}{32 b^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$\left(48 a^2 A b^2+64 A b^4+3 a^4 C+24 a^2 b^2 C+48 b^4 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticPi}\left[-1, \operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{a C \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{8 d \operatorname{Sec}[c+d x]^{3/2}}+$$

$$\frac{C (a+b \operatorname{Cos}[c+d x])^{3/2} \operatorname{Sin}[c+d x]}{4 d \operatorname{Sec}[c+d x]^{3/2}}+\frac{\left(16 A b^2+a^2 C+12 b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{32 b d \sqrt{\operatorname{Sec}[c+d x]}}+$$

$$\frac{a \left(80 A b^2-3 a^2 C+52 b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{64 b^2 d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$\frac{1}{d} \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}$$

$$\left(\frac{3}{32} a C \operatorname{Sin}[c+d x]+\frac{\left(16 A b^2+a^2 C+16 b^2 C\right) \operatorname{Sin}[2(c+d x)]}{64 b}+\frac{3}{32} a C \operatorname{Sin}[3(c+d x)]+\frac{1}{32} b C \operatorname{Sin}[4(c+d x)]\right)+$$

$$\left(-80 a^2 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-80 a A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+3 a^4 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+3 a^3 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-\right.$$

$$52 a^2 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-52 a b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+160 a A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-6 a^3 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$104 a b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+80 a^2 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-80 a A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$3 a^4 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+3 a^3 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+52 a^2 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-52 a b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$96 a^2 A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+128 A b^4 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^4 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+48 a^2 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$96 b^4 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+96 a^2 A b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$128 A b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+6 a^4 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$48 a^2 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+96 b^4 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$a\,(a+b)\,\left(-80\,A\,b^2+3\,a^2\,C-52\,b^2\,C\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$2\,b\,\left(-a^3\,C-4\,a\,b^2\,(4\,A+3\,C)+8\,b^3\,(4\,A+3\,C)+a^2\,(64\,A\,b+38\,b\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(64\,b^2\,d\,\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{13/2},\,x,\,10,\,0\right\}$$

$$-\frac{1}{693\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,b\,(a+b)\,\left(741\,a^4\,A+51\,a^2\,A\,b^2+8\,A\,b^4+957\,a^4\,C+99\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+\;\frac{1}{693\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(135\,a^5\,A+741\,a^4\,A\,b+663\,a^3\,A\,b^2+51\,a^2\,A\,b^3+2\,a\,A\,b^4+8\,A\,b^5+165\,a^5\,C+957\,a^4\,b\,C+891\,a^3\,b^2\,C+99\,a^2\,b^3\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{2\,\left(135\,a^4\,A+205\,a^2\,A\,b^2-4\,A\,b^4+165\,a^4\,C+297\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{693\,a^2\,d}\;+$$

$$\frac{2\,b\,\left(229\,a^2\,A+3\,A\,b^2+297\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{693\,a\,d}\;+$$

$$\frac{2\,\left(27\,a^2\,A+5\,A\,b^2+33\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{231\,d}\;+$$

$$\frac{10\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{99\,d}\;+\;\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{11/2}\,\text{Sin}[c+d\,x]}{11\,d}\;+$$

$$\frac{2\,b\,\left(741\,a^4\,A+51\,a^2\,A\,b^2+8\,A\,b^4+957\,a^4\,C+99\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{693\,a^3\,d}$$

$$\frac{1}{693\,a^3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(b\left(8\,A\,b^4+3\,a^2\,b^2\,(17\,A+33\,C)+a^4\,(741\,A+957\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$b\,(a+b)\left(8\,A\,b^4+3\,a^2\,b^2\,(17\,A+33\,C)+a^4\,(741\,A+957\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\left(-6\,a\,A\,b^3+8\,A\,b^4+15\,a^4\,(9\,A+11\,C)+3\,a^2\,b^2\,(19\,A+33\,C)+a^3\,(606\,A\,b+792\,b\,C)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\,b\left(741\,a^4\,A+51\,a^2\,A\,b^2+8\,A\,b^4+957\,a^4\,C+99\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{693\,a^3}+\right.$$

$$\frac{2}{693}\,\text{Sec}[c+d\,x]^3\left(81\,a^2\,A\,\text{Sin}[c+d\,x]+113\,A\,b^2\,\text{Sin}[c+d\,x]+99\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\left(229\,a^2\,A\,b\,\text{Sin}[c+d\,x]+3\,A\,b^3\,\text{Sin}[c+d\,x]+297\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{693\,a}+\frac{1}{693\,a^2}2\,\text{Sec}[c+d\,x]$$

$$\left(135\,a^4\,A\,\text{Sin}[c+d\,x]+205\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-4\,A\,b^4\,\text{Sin}[c+d\,x]+165\,a^4\,C\,\text{Sin}[c+d\,x]+297\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\left.\frac{46}{99}\,a\,A\,b\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]+\frac{2}{11}\,a^2\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{11/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+189\,a^4\,C+483\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{315\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(147\,a^4\,A+261\,a^3\,A\,b+279\,a^2\,A\,b^2+155\,a\,A\,b^3-10\,A\,b^4+189\,a^4\,C+357\,a^3\,b\,C+483\,a^2\,b^2\,C+315\,a\,b^3\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,b\,\left(163\,a^2\,A+5\,A\,b^2+231\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a\,d}+$$

$$\frac{2\,\left(49\,a^2\,A+15\,A\,b^2+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,d}+$$

$$\frac{10\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}+$$

$$\frac{2\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+189\,a^4\,C+483\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^2\,d}$$

$$\frac{1}{315\,a^2\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(-10\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)+$$

$$(a+b)\,\left(-\left(-10\,A\,b^4+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a\,\left(-10\,A\,b^3+21\,a^3\,(7\,A+9\,C)+15\,a\,b^2\,(11\,A+21\,C)+6\,a^2\,b\,(19\,A+28\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+\frac{1}{d}$$

$$\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(-\frac{2\,\left(-147\,a^4\,A-279\,a^2\,A\,b^2+10\,A\,b^4-189\,a^4\,C-483\,a^2\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{315\,a^2}+\right.$$

$$\frac{2}{315}\,\text{Sec}[c+d\,x]^2\,\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+75\,A\,b^2\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(163\,a^2\,A\,b\,\text{Sin}[c+d\,x]+5\,A\,b^3\,\text{Sin}[c+d\,x]+231\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\left.\frac{38}{63}\,a\,A\,b\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]+\frac{2}{9}\,a^2\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{9/2},\,x,\,10,\,0\right\}$$

$$-\frac{1}{21\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,b\,(a+b)\,\left(29\,a^2\,A+3\,A\,b^2+49\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{21\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(5\,a^3\,A+29\,a^2\,A\,b+27\,a\,A\,b^2+3\,A\,b^3+7\,a^3\,C+49\,a^2\,b\,C+63\,a\,b^2\,C-21\,b^3\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{4\,b^3\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(5\,a^2\,A+3\,A\,b^2+7\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{21\,d}+$$

$$\frac{2\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{7\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,b\,\left(29\,a^2\,A+3\,A\,b^2+49\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{21\,a\,d}$$

$$\frac{1}{21\,a\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-b\,(a+b)\left(3\,A\,b^2+a^2\,(29\,A+49\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\left(3\,b^3\,(A-7\,C)+9\,a\,b^2\,(3\,A+7\,C)+a^3\,(5\,A+7\,C)+a^2\,b\,(29\,A+49\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$b\left(-\left(3\,A\,b^2+a^2\,(29\,A+49\,C)\right)\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)+\right.$$

$$42\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\,b\left(29\,a^2\,A+3\,A\,b^2+49\,a^2\,C\right)\text{Sin}[c+d\,x]}{21\,a}+\right.$$

$$\frac{2}{21}\,\text{Sec}[c+d\,x]\left(5\,a^2\,A\,\text{Sin}[c+d\,x]+9\,A\,b^2\,\text{Sin}[c+d\,x]+7\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\left.\frac{6}{7}\,a\,A\,b\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]+\frac{2}{7}\,a^2\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{7/2},\,x,\,10,\,0\right\}$$

$$-\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(18\,a^2\,A+46\,A\,b^2+30\,a^2\,C-15\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(9\,a^3\,A+17\,a^2\,A\,b+23\,a\,A\,b^2+15\,A\,b^3+15\,a^3\,C+45\,a^2\,b\,C-45\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{10\,a\,b^2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(3\,a^2\,A+5\,A\,b^2+5\,a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,A\,b\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}-$$

$$\frac{\left(18\,a^2\,A+46\,A\,b^2+30\,a^2\,C-15\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{15\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-18\,a^3\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-18\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-46\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$46\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-30\,a^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-30\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+15\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$15\,b^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+36\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+92\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+60\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-$$

$$30\,b^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+18\,a^3\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-18\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+46\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$46\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+30\,a^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-30\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-15\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$15\,b^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-150\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-150\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(b^2(46\,A-15\,C)+6\,a^2(3\,A+5\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\left(15\,A\,b^3+a\,b^2(23\,A-45\,C)+3\,a^3(3\,A+5\,C)+a^2\,b(17\,A+45\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2}{15}\left(9\,a^2\,A+23\,A\,b^2+15\,a^2\,C\right)\text{Sin}[c+d\,x]+\right.$$

$$\left.\frac{22}{15}\,a\,A\,b\,\text{Tan}[c+d\,x]+\frac{2}{5}\,a^2\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2},\,x,\,10,\,0\right\}$$

$$-\frac{1}{24\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(48\,a^2\,A-24\,A\,b^2-33\,a^2\,C-16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}a\left(24\,a^2\,A+72\,a\,A\,b-72\,A\,b^2-24\,a^2\,C+13\,a\,b\,C-38\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}5\,a\left(8\,A\,b^2+a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}-\frac{a\,b\,(8\,A-3\,C)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}-$$

$$\frac{b\,(6\,A-C)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}-$$

$$\frac{\left(48\,a^2\,A-24\,A\,b^2-33\,a^2\,C-16\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\left(\frac{1}{12}\left(24\,a^2\,A+b^2\,C\right)\text{Sin}[c+d\,x]+\frac{13}{24}\,a\,b\,C\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b^2\,C\,\text{Sin}[3\,(c+d\,x)]\right)}{d}+$$

$$\frac{1}{24\,d\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\left(-48\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-48\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+24\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\right.$$

$$24\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+33\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+33\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+16\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$16\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+96\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-48\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-66\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$32\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+48\,a^3\,A\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-48\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$24\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-33\,a^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+33\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 240 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 30 a^3 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$120 a b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 240 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$30 a^3 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 120 a b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$(a+b)\left(a^2(48 A - 33 C) - 8 b^2(3 A + 2 C)\right) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2 a\left(24 a^2(A - C) + a b(72 A + 13 C) - 2 b^2(36 A + 19 C)\right) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \operatorname{Cos}[c+d x])^{5/2}\left(A+C \operatorname{Cos}[c+d x]^2\right) \sqrt{\operatorname{Sec}[c+d x]}, x, 10, 0\right\}$$

$$\frac{1}{192\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\, a\,(a+b)\,\left(432\, A\, b^2+15\, a^2\, C+284\, b^2\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+\;\frac{1}{96\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(192\, a^3\, A-576\, a^2\, A\, b+48\, a\, A\, b^2-96\, A\, b^3+59\, a^3\, C-322\, a^2\, b\, C+36\, a\, b^2\, C-72\, b^3\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{1}{32\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(240\, a^2\, A\, b^2+64\, A\, b^4-5\, a^4\, C+120\, a^2\, b^2\, C+48\, b^4\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+$$

$$\frac{\left(16\, A\, b^2+5\, a^2\, C+12\, b^2\, C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{32\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{5\, a\, C\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{24\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{C\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{4\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{a\left(432\, A\, b^2+15\, a^2\, C+284\, b^2\, C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\, b\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{17}{96}\, a\, b\, C\,\mathrm{Sin}[c+d\,x]+\frac{1}{192}\left(48\, A\, b^2+59\, a^2\, C+48\, b^2\, C\right)\mathrm{Sin}[2\,(c+d\,x)]+\frac{17}{96}\, a\, b\, C\,\mathrm{Sin}[3\,(c+d\,x)]+\frac{1}{32}\, b^2\, C\,\mathrm{Sin}[4\,(c+d\,x)]\right)+$$

$$\Bigg(-432\, a^2\, A\, b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-432\, a\, A\, b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\, a^4\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\, a^3\, b\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$284\, a^2\, b^2\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-284\, a\, b^3\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+864\, a\, A\, b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+30\, a^3\, b\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$568\, a\, b^3\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+432\, a^2\, A\, b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-432\, a\, A\, b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$15\, a^4\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\, a^3\, b\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+284\, a^2\, b^2\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-284\, a\, b^3\, C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$1440\, a^2\, A\, b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+384\, A\, b^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$30\,a^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+720\,a^2\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$288\,b^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+1440\,a^2\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$384\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-30\,a^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$720\,a^2\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+288\,b^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$a\,(a+b)\,\left(432\,A\,b^2+15\,a^2\,C+284\,b^2\,C\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,+$$

$$2\,b\,\left(-12\,a\,b^2\,(4\,A+3\,C)+24\,b^3\,(4\,A+3\,C)-a^3\,(192\,A+59\,C)+a^2\,(576\,A\,b+322\,b\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(192\,b\,d\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\left(A+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Sec}[c+d\,x]}},\,x,\,11,\,0\right\}$$

$$\frac{1}{1920\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,(a+b)\,\left(2640\,a^2\,A\,b^2+1280\,A\,b^4-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,-$$

$$\frac{1}{960\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,a\,\left(1920\,a^2\,A\,b-1040\,a\,A\,b^2+3040\,A\,b^3-15\,a^3\,C+1146\,a^2\,b\,C-772\,a\,b^2\,C+2312\,b^3\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{64\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,a\,\left(80\,a^2\,A\,b^2+320\,A\,b^4+3\,a^4\,C+40\,a^2\,b^2\,C+240\,b^4\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{\left(80\,A\,b^2+15\,a^2\,C+64\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{240\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a\,C\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{8\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{C\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{5\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{a\,\left(1040\,A\,b^2+15\,a^2\,C+772\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{960\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{\left(2640\,a^2\,A\,b^2+1280\,A\,b^4-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{1920\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(\frac{1}{960}\left(80\,A\,b^2+93\,a^2\,C+88\,b^2\,C\right)\mathrm{Sin}[c+d\,x]+\frac{a\left(1040\,A\,b^2+15\,a^2\,C+1024\,b^2\,C\right)\mathrm{Sin}[2\,(c+d\,x)]}{1920\,b}+\right.$$

$$\left.\frac{1}{960}\left(80\,A\,b^2+93\,a^2\,C+100\,b^2\,C\right)\mathrm{Sin}[3\,(c+d\,x)]+\frac{21}{320}\,a\,b\,C\,\mathrm{Sin}[4\,(c+d\,x)]+\frac{1}{80}\,b^2\,C\,\mathrm{Sin}[5\,(c+d\,x)]\right)+$$

$$\frac{1}{1920\,b^2\,d\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\left(2640\,a^3\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+2640\,a^2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+1280\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+1280\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-\right.$$

$$45\,a^5\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-45\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+1692\,a^3\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+1692\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$1024\,a\,b^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+1024\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5280\,a^2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2560\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$90\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-3384\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2048\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2640\,a^3\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$2640\,a^2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-1280\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+1280\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+45\,a^5\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$45\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-1692\,a^3\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+1692\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-1024\,a\,b^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$1024\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-2400\,a^3\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-9600\,a\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$90\,a^5\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-1200\,a^3\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$7200\,a\,b^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-90\,a^5\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$1200\,a^3\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-7200\,a\,b^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b)\left(45\,a^4\,C-256\,b^4\,(5\,A+4\,C)-12\,a^2\,b^2\,(220\,A+141\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2\,a\,b$$

$$\left(15\,a^3\,C-6\,a^2\,b\,(320\,A+191\,C)+4\,a\,b^2\,(260\,A+193\,C)-8\,b^3\,(380\,A+289\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{9/2}}{\sqrt{a+b\,\text{Cos}[c+d x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{105\,a^4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,b\,(a+b)\,\left(22\,a^2\,A+24\,A\,b^2+35\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{105\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A-44\,a^2\,A\,b-12\,a\,A\,b^2-48\,A\,b^3+35\,a^3\,C-70\,a^2\,b\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(25\,a^2\,A+24\,A\,b^2+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a^3\,d}-$$

$$\frac{12\,A\,b\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,a^2\,d}+\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,a\,d}-$$

$$\frac{4\,b\,\left(22\,a^2\,A+24\,A\,b^2+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^4\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(-\frac{4\,b\,\left(22\,a^2\,A+24\,A\,b^2+35\,a^2\,C\right)\,\text{Sin}[c+d\,x]}{105\,a^4}+\frac{2\,\text{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+24\,A\,b^2\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{105\,a^3}-\right.$$

$$\left.\frac{12\,A\,b\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{35\,a^2}+\frac{2\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{7\,a}\right)+$$

$$\left(4\,\left(\frac{44\,A\,b}{105\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{16\,A\,b^3}{35\,a^3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{2\,b\,C}{3\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{5\,A\,\sqrt{\text{Sec}[c+d\,x]}}{21\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{32\,A\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{16\,A\,b^4\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^4\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{C\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^2\,C\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{44\,A\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{105\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\left.\frac{16\,A\,b^4\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{35\,a^4\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(2\,b\,(a+b)\,\left(24\,A\,b^2+a^2\,(22\,A+35\,C)\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,\left(-12\,a\,A\,b^2-48\,A\,b^3+5\,a^3\,(5\,A+7\,C)-2\,a^2\,b\,(22\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(24\,A\,b^2+a^2\,(22\,A+35\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(105\,a^4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(\frac{1}{105\,a^4\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\,\Bigg(2\,b\,(a+b)\left(24\,A\,b^2+a^2\,(22\,A+35\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\left(-12\,a\,A\,b^2-48\,A\,b^3+5\,a^3\,(5\,A+7\,C)-2\,a^2\,b\,(22\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(24\,A\,b^2+a^2\,(22\,A+35\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{105\,a^4\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,(a+b)\left(24\,A\,b^2+a^2\,(22\,A+35\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\left(-12\,a\,A\,b^2-48\,A\,b^3+5\,a^3\,(5\,A+7\,C)-2\,a^2\,b\,(22\,A+35\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(24 A b^2+a^2 (22 A+35 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg)+$$

$$\frac{1}{105 a^4 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}} 4 \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\Bigg(\frac{1}{2} b\left(24 A b^2+a^2 (22 A+35 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4+$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}} b (a+b)\left(24 A b^2+a^2 (22 A+35 C)\right) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+$$

$$\frac{1}{2 \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}} a\left(-12 a A b^2-48 A b^3+5 a^3 (5 A+7 C)-2 a^2 b (22 A+35 C)\right) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)+\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}}$$

$$b (a+b)\left(24 A b^2+a^2 (22 A+35 C)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right)+\frac{1}{2 \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}}$$

$$a\left(-12 a A b^2-48 A b^3+5 a^3 (5 A+7 C)-2 a^2 b (22 A+35 C)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right)-$$

$$b^2\left(24 A b^2+a^2 (22 A+35 C)\right) \text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right]-$$

$$\frac{\left(b\left(24Ab^2+a^2(22A+35C)\right)(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sin}[c+dx]\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]+b\left(24Ab^2+a^2(22A+35C)\right)\mathrm{Cos}[c+dx](a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2+\frac{a\left(-12aAb^2-48Ab^3+5a^3(5A+7C)-2a^2b(22A+35C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}+\frac{b(a+b)\left(24Ab^2+a^2(22A+35C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\right)+$$

$$\frac{1}{105a^4\sqrt{a+b\,\mathrm{Cos}[c+dx]}\sqrt{\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]}}$$

$$2\left(2b(a+b)\left(24Ab^2+a^2(22A+35C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+a\left(-12aAb^2-48Ab^3+5a^3(5A+7C)-2a^2b(22A+35C)\right)\sqrt{\frac{\mathrm{Cos}[c+dx]}{1+\mathrm{Cos}[c+dx]}}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+b\left(24Ab^2+a^2(22A+35C)\right)\mathrm{Cos}[c+dx](a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right)\left(-\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]\mathrm{Sec}[c+dx]\,\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^{7/2}}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{15 a^3 d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 (a+b) \left(9 a^2 A+8 A b^2+15 a^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{1}{15 a^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 \left(9 a^2 A+2 a A b+8 A b^2+15 a^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}-$$

$$\frac{8 A b \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sec}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{15 a^2 d}+\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sec}[c+d x]^{5/2} \operatorname{Sin}[c+d x]}{5 a d}+$$

$$\frac{2 \left(9 a^2 A+8 A b^2+15 a^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{15 a^3 d}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \left(\frac{2 \left(9 a^2 A+8 A b^2+15 a^2 C\right) \operatorname{Sin}[c+d x]}{15 a^3}-\frac{8 A b \operatorname{Tan}[c+d x]}{15 a^2}+\frac{2 A \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{5 a}\right)}{d}+$$

$$\left(2\left(-\frac{3 A}{5 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}-\frac{8 A b^2}{15 a^2 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}-\right.\right.$$

$$\frac{C}{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}-\frac{7 A b \sqrt{\operatorname{Sec}[c+d x]}}{15 a \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{8 A b^3 \sqrt{\operatorname{Sec}[c+d x]}}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{b C \sqrt{\operatorname{Sec}[c+d x]}}{a \sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\left.\frac{3 A b \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{5 a \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{8 A b^3 \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{b C \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{a \sqrt{a+b \operatorname{Cos}[c+d x]}}\right)$$

$$\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \left(-2(a+b)\left(8 A b^2+3 a^2(3 A+5 C)\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(2 a A b+8 A b^2+3 a^2(3 A+5 C)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(8 A b^2+3 a^2(3 A+5 C)\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\right) \Big/$$

$$\left(15 a^3 d \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2} \left(\frac{1}{15 a^3 (a+b \operatorname{Cos}[c+d x])^{3/2} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}\right.\right.$$

$$b \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x] \left(-2(a+b)\left(8 A b^2+3 a^2(3 A+5 C)\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}}\right.$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(2 a A b+8 A b^2+3 a^2(3 A+5 C)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(8 A b^2+3 a^2(3 A+5 C)\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\right)-$$

$$\frac{1}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(-2(a+b)\left(8 A b^2+3 a^2(3 A+5 C)\right) \sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\right.$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+2 a\left(2 a A b+8 A b^2+3 a^2(3 A+5 C)\right)$$

$$\sqrt{\frac{\operatorname{Cos}[c+d x]}{1+\operatorname{Cos}[c+d x]}} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]-$$

$$\left.\left(8 A b^2+3 a^2(3 A+5 C)\right) \operatorname{Cos}[c+d x](a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+$$

$$\frac{1}{15 a^3 \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}} 2 \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]} \left(-\frac{1}{2}\left(8 A b^2+3 a^2(3 A+5 C)\right) \operatorname{Cos}[c+d x]\right.$$

$$(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}(a+b)\,\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}$$

$$a\,\left(2\,a\,A\,b+8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}(a+b)\,\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\right.$$

$$\left.\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}a\,\left(2\,a\,A\,b+8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+$$

$$b\,\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sin}[c+d\,x]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,\left(2\,a\,A\,b+8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\,\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{15\,a^3\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\,\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(2\,a\,A\,b+8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(8\,A\,b^2+3\,a^2\,(3\,A+5\,C)\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\mathrm{Sec}[c+d\,x]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{4\,A\,b\,(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,(a\,A-2\,A\,b+3\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a\,d}-\frac{4\,A\,b\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(-\frac{4\,A\,b\,\mathrm{Sin}[c+d\,x]}{3\,a^2}+\frac{2\,A\,\mathrm{Tan}[c+d\,x]}{3\,a}\right)}{d}+$$

$$\left(4\left(\frac{2\,A\,b}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.\right.$$

$$\left.\frac{C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left(2\,A\,b\,(a+b)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(-2\,A\,b+a\,(A+3\,C))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.A\,b\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\Bigg)\Bigg/\Bigg(3\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(\frac{1}{3\,a^2\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\right.$$

$$\left(2\,A\,b\,(a+b)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(-2\,A\,b+a\,(A+3\,C))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.A\,b\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(2 A b (a+b) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+\right.$$

$$a(-2 A b+a(A+3 C)) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$\left.A b \text{Cos}[c+d x](a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)+\frac{1}{3 a^2 \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$4 \sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \text{Sec}[c+d x]} \left(\frac{1}{2} A b \text{Cos}[c+d x](a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^4+\right.$$

$$\frac{A b (a+b) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}+$$

$$\frac{a(-2 A b+a(A+3 C)) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{2 \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

$$+$$

$$\frac{A b (a+b) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\left(-\frac{b \text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}+$$

$$\frac{1}{2 \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}$$

$$a(-2 A b+a(A+3 C)) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)-$$

$$A\,b^2\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$A\,b\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$A\,b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\,(-2\,A\,b+a\,(A+3\,C))\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{A\,b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{3\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$2\left(2\,A\,b\,(a+b)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$a\,(-2\,A\,b+a\,(A+3\,C))\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.A\,b\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(a+b)\,C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,a\,C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{C\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\left(\left(\frac{A\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{C\sqrt{\text{Sec}[c+d\,x]}}{2\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{C\,\text{Cos}[2\,(c+d\,x)]\sqrt{\text{Sec}[c+d\,x]}}{2\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\right.$$

$$\left(2\,(a+b)\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$4\,A\,b\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$C\left(4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$\left.\left.\left.\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\right)\Bigg/$$

$$\left(b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(\frac{1}{2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\right.\right.$$

$$\text{Sin}[c+d\,x]\left(2\,(a+b)\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.$$

$$4\,A\,b\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$C\left(4a\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)\Bigg)-$$

$$\frac{1}{2b\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]$$

$$\Bigg(2(a+b)\,C\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$4Ab\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$C\left(4a\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\text{Cos}[c+dx]\,(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)\Bigg)+$$

$$\frac{1}{b\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}$$

$$\Bigg(\frac{(a+b)\,C\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{(1+\text{Cos}[c+dx])^2}-\frac{\text{Sin}[c+dx]}{1+\text{Cos}[c+dx]}\right)}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}+$$

$$\frac{2Ab\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+dx]\,\text{Sin}[c+dx]}{(1+\text{Cos}[c+dx])^2}-\frac{\text{Sin}[c+dx]}{1+\text{Cos}[c+dx]}\right)}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}+$$

$$\frac{(a+b)\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}+$$

$$\frac{2\,A\,b\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}+$$

$$\frac{2\,A\,b\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{(a+b)\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}+$$

$$C\left(\frac{1}{2}\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4+\right.$$

$$\frac{2\,a\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}+$$

$$\frac{2\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\;\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}-$$

$$b\,\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$\frac{2\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}\Bigg)\Bigg)+$$

$$\frac{1}{2\,b\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}}$$

$$\Bigg(2\,(a+b)\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$4\,A\,b\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$C\Bigg(4\,a\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,8,\,0\right\}$$

$$-\frac{3\,a\,(a+b)\,C\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{4\,b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{1}{2\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}(4\,A\,b-a\,C+2\,b\,C)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{2\,b^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(8\,A\,b^2+3\,a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{C\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d\sqrt{\text{Sec}[c+d\,x]}}-\frac{3\,a\,C\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^2\,d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{C\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[2\,(c+d\,x)]}{4\,b\,d}+$$

$$\Bigg(3\,a^2\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]+3\,a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]-6\,a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^3-3\,a^2\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5+$$

$$3\,a\,b\,C\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^5+16\,A\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+6\,a^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$8\,b^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+16\,A\,b^2\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$6\,a^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+8\,b^2\,C\,\mathrm{EllipticPi}\Big[-1,\,-\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\,\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+$$

$$3\,a\,(a+b)\,C\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\Big(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\Big)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}+2\,b\,(4\,A\,b-a\,C+2\,b\,C)\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\,\frac{-a+b}{a+b}\Big]$$

$$\sqrt{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}\,\Big(1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2\Big)\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{a+b}}\Bigg)\Bigg/$$

$$\Bigg(4\,b^2\,d\,\sqrt{\frac{1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{1-\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2-b\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}{1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^2}}\,\Big(-1+\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]^4\Big)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{24\,b^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(24\,A\,b^2+15\,a^2\,C+16\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ -$$

$$\frac{a\,(5\,a+2\,b)\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{12\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\ -$$

$$\frac{1}{4\,b^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}a\left(8\,A\,b^2+5\,a^2\,C+4\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +\ \frac{C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{3\,b\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}\ -$$

$$\frac{5\,a\,C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{12\,b^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{\left(24\,A\,b^2+15\,a^2\,C+16\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,b^3\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{C\,\mathrm{Sin}[c+d\,x]}{12\,b}-\frac{5\,a\,C\,\mathrm{Sin}[2\,(c+d\,x)]}{24\,b^2}+\frac{C\,\mathrm{Sin}[3\,(c+d\,x)]}{12\,b}\right)}{d}\ -$$

$$\frac{1}{24\,b^3\,d\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\Bigg(-24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$15\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+48\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$30\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+32\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$15\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$48\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-48\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(24\,A\,b^2+15\,a^2\,C+16\,b^2\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,a\,b\,(5\,a+2\,b)\,C\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{7/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\left(2\left(3a^4A+8a^2Ab^2-16Ab^4+5a^4C-10a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(5a^4(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3A-4a^2Ab+12aAb^2-16Ab^3+5a^3C-10a^2bC\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(5a^3(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$\frac{2b\left(3a^2A-8Ab^2-5a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{5a^3\left(a^2-b^2\right)d}+$$

$$\frac{2\left(Ab^2+a^2C\right)\text{Sec}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^2A-6Ab^2-5a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{5a^2\left(a^2-b^2\right)d}+$$

$$\frac{2\left(3a^4A+8a^2Ab^2-16Ab^4+5a^4C-10a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{5a^4\left(a^2-b^2\right)d}$$

$$\frac{1}{5a^4\left(a^2-b^2\right)d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\left(\left(-16Ab^4+2a^2b^2(4A-5C)+a^4(3A+5C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+dx)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)-$$

$$(a+b)\left(-16Ab^4+2a^2b^2(4A-5C)+a^4(3A+5C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+$$

$$a(a+b)\left(12aAb^2-16Ab^3-2a^2b(2A+5C)+a^3(3A+5C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(3a^4A+8a^2Ab^2-16Ab^4+5a^4C-10a^2b^2C\right)\text{Sin}[c+dx]}{5a^4\left(a^2-b^2\right)}+\right.$$

$$\left.\frac{2\left(Ab^4\,\text{Sin}[c+dx]+a^2b^2C\,\text{Sin}[c+dx]\right)}{a^3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}-\frac{6Ab\,\text{Tan}[c+dx]}{5a^3}+\frac{2A\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{5a^2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\left(2\,b\left(5\,a^2\,A-8\,A\,b^2-3\,a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a^3\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\left(2\left(a^2\,A-6\,a\,A\,b+8\,A\,b^2+3\,a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a^2\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\left(a^2\,A-4\,A\,b^2-3\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)d}-$$

$$\frac{2\,b\left(5\,a^2\,A-8\,A\,b^2-3\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^3\left(a^2-b^2\right)d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(-\frac{2\,b\left(5\,a^2\,A-8\,A\,b^2-3\,a^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a^3\left(a^2-b^2\right)}-\frac{2\left(A\,b^3\,\mathrm{Sin}[c+d\,x]+a^2\,b\,C\,\mathrm{Sin}[c+d\,x]\right)}{a^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])}+\frac{2\,A\,\mathrm{Tan}[c+d\,x]}{3\,a^2}\right)}{d}-$$

$$\left(2\left(\frac{5\,A\,b}{3\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,A\,b^3}{3\,a^2\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{b\,C}{\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{a\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{7\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{8\,A\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^3\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\left.\frac{5\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^3\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,C\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\left(a^2-b^2\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\left(2\,b\,(a+b)\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]-2\,a\,(a+b)\left(-6\,a\,A\,b+8\,A\,b^2+a^2\,(A+3\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,a^3\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(-\frac{1}{3\,a^3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\Bigg(2\,b\,(a+b)\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-2\,a\,(a+b)\left(-6\,a\,A\,b+8\,A\,b^2+a^2\,(A+3\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)+$$

$$\frac{1}{3\,a^3\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,(a+b)\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-2\,a\,(a+b)\left(-6\,a\,A\,b+8\,A\,b^2+a^2\,(A+3\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(8 A b^2+a^2 (-5 A+3 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg) -$$

$$\frac{1}{3 a^3 \left(a^2-b^2\right) \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}} 2 \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\Bigg(\frac{1}{2} b \left(8 A b^2+a^2 (-5 A+3 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 + \frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

$$b (a+b) \left(8 A b^2+a^2 (-5 A+3 C)\right) \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2} - \frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right) - \frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}} a (a+b) \left(-6 a A b+8 A b^2+a^2 (A+3 C)\right)$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(\frac{\text{Cos}[c+d x] \text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2} -$$

$$\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right) + \frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}} b (a+b) \left(8 A b^2+a^2 (-5 A+3 C)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])} + \frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right) -$$

$$\frac{1}{\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}}} a (a+b) \left(-6 a A b+8 A b^2+a^2 (A+3 C)\right) \sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right] \left(-\frac{b \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])} + \frac{(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])^2}\right) -$$

$$b^2 \left(8 A b^2+a^2 (-5 A+3 C)\right) \text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right] -$$

$$b \left(8 A b^2+a^2 (-5 A+3 C)\right) (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right] +$$

$$b \left(8 A b^2+a^2 (-5 A+3 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2 -$$

$$\frac{a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+a^2\,(A+3\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{b\,(a+b)\,\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)-$$

$$\left(\left(2\,b\,(a+b)\,\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-2\,a\,(a+b)\,\left(-6\,a\,A\,b+8\,A\,b^2+a^2\,(A+3\,C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,\left(8\,A\,b^2+a^2\,(-5\,A+3\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\Big/$$

$$\left.\left.\left(3\,a^3\,\left(a^2-b^2\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2}}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,6,\,0\right\}$$

$$-\frac{1}{a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(a^2\,A-2\,A\,b^2-a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a\,A-2\,A\,b-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,\left(A\,b^2+a^2\,C\right)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,\left(a^2\,A-2\,A\,b^2-a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,\left(a^2-b^2\right)\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{2\,(a^2\,A-2\,A\,b^2-a^2\,C)\,\mathrm{Sin}[c+d\,x]}{a^2\,(a^2-b^2)}+\frac{2\,(A\,b^2\,\mathrm{Sin}[c+d\,x]+a^2\,C\,\mathrm{Sin}[c+d\,x])}{a\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}+$$

$$\left(\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\right.$$

$$\left((a+b)\,\left((2\,A\,b^2+a^2\,(-A+C))\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.\right.$$

$$\left.a\,(-2\,A\,b+a\,(A-C))\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)$$

$$\left(\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,\mathrm{Sec}[c+d\,x]+$$

$$\left.\left.(2\,A\,b^2+a^2\,(-A+C))\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(a^2\,(a^2-b^2)\,d\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{\mathrm{Sec}[c+d\,x]}{1+\mathrm{Sec}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(A+C\,\mathrm{Cos}[c+d\,x]^2)\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(A\,b^2+a^2\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,(a-b)\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A+C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{4\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A\,b^2+a^2\,C)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,b\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{a\,b\left(a^2-b^2\right)}-\frac{2\left(A\,b^2\,\mathrm{Sin}[c+d\,x]+a^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{b\left(a^2-b^2\right)\left(a+b\,\mathrm{Cos}[c+d\,x]\right)}\right)}{d}+$$

$$\frac{1}{b\left(a^3-a\,b^2\right)d\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\,2\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\Bigg(-a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$2\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-2\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+2\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+2\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(A\,b^2+a^2\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,b\,(a+b)\,(A+C)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;-$$

$$\frac{2\,(A\,b+a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\;-$$

$$\frac{6\,a\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\;-$$

$$\frac{2\left(A\,b^2+a^2\,C\right)\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b^2\left(a^2-b^2\right)d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{b^2\left(-a^2+b^2\right)}+\frac{2\left(a\,A\,b^2\,\mathrm{Sin}[c+d\,x]+a^3\,C\,\mathrm{Sin}[c+d\,x]\right)}{b^2\left(a^2-b^2\right)\left(a+b\,\mathrm{Cos}[c+d\,x]\right)}\right)}{d}+$$

$$\frac{1}{b^2\left(-a^2+b^2\right)d\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+4\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$6\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$6\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+6\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$6\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+6\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(2\,A\,b^2+3\,a^2\,C-b^2\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+2\,b\,(a+b)\,(A\,b+a\,C)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 9,\ 0\right\}$$

$$-\left(a\left(8Ab^2+15a^2C-7b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\left(1+\text{Cos}[c+dx]\right)}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(4(a-b)b^3d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(\left(4Ab^2+5a^2C-3abC+2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\left(1+\text{Cos}[c+dx]\right)}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(2(a-b)b^2d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{1}{2b^3d\sqrt{a+b\,\text{Cos}[c+dx]}}\left(8Ab^2+15a^2C+4b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\left(1+\text{Cos}[c+dx]\right)}}$$

$$\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}-$$

$$\frac{2\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{b\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}}+\frac{\left(4Ab^2+5a^2C-b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{2b^2\left(a^2-b^2\right)d\sqrt{\text{Sec}[c+dx]}}-$$

$$\frac{a\left(8Ab^2+15a^2C-7b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{4b^3\left(a^2-b^2\right)d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2a\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{b^3\left(a^2-b^2\right)}-\frac{2\left(a^2Ab^2\text{Sin}[c+dx]+a^4C\,\text{Sin}[c+dx]\right)}{b^3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+\frac{C\,\text{Sin}[2(c+dx)]}{4b^2}\right)}{d}-$$

$$\left(-8a^2Ab^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]-8aAb^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]-15a^4C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]-\right.$$

$$15a^3bC\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+7a^2b^2C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+7ab^3C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+16aAb^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3+$$

$$30a^3bC\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3-14ab^3C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3+8a^2Ab^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-8aAb^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+$$

$$15a^4C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-15a^3bC\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-7a^2b^2C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5+7ab^3C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^5-$$

$$16a^2Ab^2\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+16\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+22\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$8\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-16\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$16\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$22\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+8\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$a(a+b)\left(8 A b^2+15 a^2 C-7 b^2 C\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2 b(a+b)\left(4 A b^2+\left(5 a^2-3 a b+2 b^2\right) C\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} \Bigg) \Big/$$

$$\left(4 b^3\left(a^2-b^2\right) d \sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{5/2}}{(a+b\,\text{Cos}[c+d x])^{5/2}}, x, 8, 0\right\}$$

$$\Bigg(4 b\left(4 a^4 A-14 a^2 A b^2+8 A b^4-3 a^4 C+a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\Bigg) \Big/ \left(3 a^4(a-b)^2(a+b) d \sqrt{a+b\,\text{Cos}[c+d x]}\right) +$$

$$\Bigg(2\left(a^4 A-9 a^3 A b+16 a^2 A b^2+12 a A b^3-16 A b^4+3 a^4 C+3 a^3 b C-2 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\Bigg) \Big/$$

$$\left(3 a^3(a-b)^2(a+b) d \sqrt{a+b\,\text{Cos}[c+d x]}\right) + \frac{2\left(A b^2+a^2 C\right)\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 a\left(a^2-b^2\right) d\,(a+b\,\text{Cos}[c+d x])^{3/2}} +$$

$$\frac{4\left(5 a^2 A b^2-3 A b^4+2 a^4 C\right)\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 a^2\left(a^2-b^2\right)^2 d \sqrt{a+b\,\text{Cos}[c+d x]}} +$$

$$\frac{2\left(a^4 A-13 a^2 A b^2+8 A b^4-5 a^4 C+a^2 b^2 C\right) \sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{3 a^3\left(a^2-b^2\right)^2 d} -$$

$$\frac{4 b\left(4 a^4 A-14 a^2 A b^2+8 A b^4-3 a^4 C+a^2 b^2 C\right) \sqrt{a+b\,\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 a^4\left(a^2-b^2\right)^2 d}$$

$$\frac{1}{3 a^4 \left(a^2-b^2\right)^2 d \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}$$

$$2 \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-2 b \left(8 A b^4+a^4 (4 A-3 C)+a^2 b^2 (-14 A+C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right] \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \left(a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)+$$

$$2 b (a+b) \left(8 A b^4+a^4 (4 A-3 C)+a^2 b^2 (-14 A+C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$a (a+b) \left(12 a A b^3-16 A b^4+2 a^2 b^2 (8 A-C)+3 a^3 b (-3 A+C)+a^4 (A+3 C)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d} \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \left(-\frac{4 b \left(4 a^4 A-14 a^2 A b^2+8 A b^4-3 a^4 C+a^2 b^2 C\right) \text{Sin}[c+d x]}{3 a^4 \left(a^2-b^2\right)^2}-\right.$$

$$\frac{2 \left(A b^3 \text{Sin}[c+d x]+a^2 b C \text{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}-$$

$$\left.\frac{2 \left(11 a^2 A b^3 \text{Sin}[c+d x]-7 A b^5 \text{Sin}[c+d x]+5 a^4 b C \text{Sin}[c+d x]-a^2 b^3 C \text{Sin}[c+d x]\right)}{3 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}+\frac{2 A \text{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^{5/2}}, x, 7, 0\right\}$$

$$-\left(2\left(3a^4A-15a^2Ab^2+8Ab^4-3a^4C-a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3A-9a^2Ab-6aAb^2+8Ab^3-3a^3C-a^2bC\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2\left(Ab^2+a^2C\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{4\left(4a^2Ab^2-2Ab^4+a^4C+a^2b^2C\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4-3a^4C-a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}$$

$$\left(\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4-3a^4C-a^2b^2C\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2}+\frac{2\left(Ab^2\,\text{Sin}[c+dx]+a^2C\,\text{Sin}[c+dx]\right)}{3a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\right.$$

$$\left.\frac{4\left(4a^2Ab^2\,\text{Sin}[c+dx]-2Ab^4\,\text{Sin}[c+dx]+a^4C\,\text{Sin}[c+dx]+a^2b^2C\,\text{Sin}[c+dx]\right)}{3a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)+$$

$$\frac{1}{3a^3\left(a^2-b^2\right)^2d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\left(\left(8Ab^4+3a^4(A-C)-a^2b^2(15A+C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+dx)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)-$$

$$(a+b)\left(8Ab^4+3a^4(A-C)-a^2b^2(15A+C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+$$

$$a(a+b)\left(-6aAb^2+8Ab^3+3a^3(A-C)-a^2b(9A+C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\left(4\,b\,\left(3\,a^2\,A-A\,b^2+2\,a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.\right.$$

$$\left.\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\left(2\,\left(3\,a^2\,A+3\,a\,A\,b-2\,A\,b^2+a^2\,C+3\,a\,b\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\right)\Big/\left(3\,a\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\frac{2\,\left(A\,b^2+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{4\,b\,\left(3\,a^2\,A-A\,b^2+2\,a^2\,C\right)\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,(a-b)\,(a+b)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{4\,b\,\left(3\,a^2\,A-A\,b^2+2\,a^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2}-\frac{2\,\left(A\,b^2\,\mathrm{Sin}[c+d\,x]+a^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{3\,b\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{2\,\left(-5\,a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]+A\,b^4\,\mathrm{Sin}[c+d\,x]+a^4\,C\,\mathrm{Sin}[c+d\,x]-5\,a^2\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{3\,a\,b\,\left(a^2-b^2\right)^2\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)+$$

$$\left(4\,\left(-\frac{2\,a\,A\,b}{\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,b^3}{3\,a\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{4\,a\,b\,C}{3\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{a^2\,A\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{5\,A\,b^2\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,b^4\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a^2\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b^2\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\frac{2\,A\,b^2\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^4\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{4\,b^2\,C\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\left(a^2-b^2\right)^2\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

$$\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\left(2\,b\,(a+b)\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]+a\,(a+b)\,\left(-2\,A\,b^2+3\,a\,b\,(A+C)+a^2\,(3\,A+C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(3\,\left(a^3-a\,b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\Bigg(\frac{1}{3\,\left(a^3-a\,b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\text{Sin}[c+d\,x]\,\Bigg(2\,b\,(a+b)\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\,\left(-2\,A\,b^2+3\,a\,b\,(A+C)+a^2\,(3\,A+C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)-$$

$$\frac{1}{3\,\left(a^3-a\,b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,2\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\Bigg(2\,b\,(a+b)\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\,\left(-2\,A\,b^2+3\,a\,b\,(A+C)+a^2\,(3\,A+C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$b\left(A b^2-a^2(3A+2C)\right)\operatorname{Cos}[c+dx](a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\Bigg)+$$

$$\frac{1}{3\left(a^3-a b^2\right)^2\sqrt{a+b\operatorname{Cos}[c+dx]}\sqrt{\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}4\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Sec}[c+dx]}$$

$$\Bigg(\frac{1}{2}b\left(A b^2-a^2(3A+2C)\right)\operatorname{Cos}[c+dx](a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^4+\frac{1}{\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}}$$

$$b(a+b)\left(A b^2-a^2(3A+2C)\right)\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+dx]\operatorname{Sin}[c+dx]}{(1+\operatorname{Cos}[c+dx])^2}-\frac{\operatorname{Sin}[c+dx]}{1+\operatorname{Cos}[c+dx]}\right)+\frac{1}{2\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}}a(a+b)\left(-2A b^2+3a b(A+C)+a^2(3A+C)\right)$$

$$\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\operatorname{Cos}[c+dx]\operatorname{Sin}[c+dx]}{(1+\operatorname{Cos}[c+dx])^2}-\frac{\operatorname{Sin}[c+dx]}{1+\operatorname{Cos}[c+dx]}\right)+\frac{1}{\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}}b(a+b)\left(A b^2-a^2(3A+2C)\right)\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}$$

$$\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\operatorname{Sin}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}+\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Sin}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])^2}\right)+$$

$$\frac{1}{2\sqrt{\frac{a+b\operatorname{Cos}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}}}a(a+b)\left(-2A b^2+3a b(A+C)+a^2(3A+C)\right)\sqrt{\frac{\operatorname{Cos}[c+dx]}{1+\operatorname{Cos}[c+dx]}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\operatorname{Sin}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])}+\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Sin}[c+dx]}{(a+b)(1+\operatorname{Cos}[c+dx])^2}\right)-$$

$$b^2\left(A b^2-a^2(3A+2C)\right)\operatorname{Cos}[c+dx]\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Sin}[c+dx]\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]-$$

$$b\left(A b^2-a^2(3A+2C)\right)(a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Sin}[c+dx]\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]+$$

$$b\left(A b^2-a^2(3A+2C)\right)\operatorname{Cos}[c+dx](a+b\operatorname{Cos}[c+dx])\operatorname{Sec}\left[\frac{1}{2}(c+dx)\right]^2\operatorname{Tan}\left[\frac{1}{2}(c+dx)\right]^2+$$

$$\frac{a\,(a+b)\,\left(-2\,A\,b^2+3\,a\,b\,(A+C)+a^2\,(3\,A+C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\left.\frac{b\,(a+b)\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\left(2\left(2\,b\,(a+b)\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(a+b)\,\left(-2\,A\,b^2+3\,a\,b\,(A+C)+a^2\,(3\,A+C)\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+$$

$$\left.b\,\left(A\,b^2-a^2\,(3\,A+2\,C)\right)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\Big/$$

$$\left.\left.\left(3\,\left(a^3-a\,b^2\right)^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}},\,x,\,8,\,0\right\}$$

$$\left(2\left(3a^2Ab^2+Ab^4-3a^4C+7a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a(a-b)^2b^2(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$\left(2\left(3aAb+Ab^2-2a^2C+3abC+3b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3(a-b)^2b(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{4C\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}}{b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{2\left(Ab^2+a^2C\right)\text{Sin}[c+dx]}{3b\left(a^2-b^2\right)d(a+b\,\text{Cos}[c+dx])^{3/2}\sqrt{\text{Sec}[c+dx]}}+$$

$$\frac{2\left(3a^2Ab^2+Ab^4-3a^4C+7a^2b^2C\right)\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a(a-b)b^2(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}$$

$$\left(\frac{2\left(-3a^2Ab^2-Ab^4+3a^4C-7a^2b^2C\right)\text{Sin}[c+dx]}{3ab^2\left(a^2-b^2\right)^2}+\frac{2\left(aAb^2\text{Sin}[c+dx]+a^3C\,\text{Sin}[c+dx]\right)}{3b^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\right.$$

$$\left.\frac{4\left(a^2Ab^2\text{Sin}[c+dx]+Ab^4\text{Sin}[c+dx]-2a^4C\,\text{Sin}[c+dx]+4a^2b^2C\,\text{Sin}[c+dx]\right)}{3b^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)+$$

$$\frac{1}{3ab^2\left(a^2-b^2\right)^2d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\left(3a^3Ab^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]+3a^2Ab^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]+aAb^4\text{Tan}\left[\frac{1}{2}(c+dx)\right]+\right.$$

$$Ab^5\text{Tan}\left[\frac{1}{2}(c+dx)\right]-3a^5C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]-3a^4bC\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+7a^3b^2C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]+$$

$$7a^2b^3C\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]-6a^2Ab^3\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3-2Ab^5\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3+6a^4bC\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^3-$$

$$14 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 - 3 a^3 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 3 a^2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$A b^5 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 3 a^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 3 a^4 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 7 a^3 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$7 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 6 a^5 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 12 a^3 b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$6 a b^4 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 6 a^5 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$12 a^3 b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 6 a b^4 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$(a+b)\left(-A b^4 + 3 a^4 C - a^2 b^2 (3 A + 7 C)\right) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$a b (a+b)\left(2 a^2 C - 3 a b (A + C) - b^2 (A + 3 C)\right) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A + C \operatorname{Cos}[c+d x]^2}{(a+b \operatorname{Cos}[c+d x])^{5/2} \operatorname{Sec}[c+d x]^{3/2}}, x, 9, 0\right\}$$

$$-\left(\left(8 A b^4-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3(a-b)^2 b^3(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(2\left(a A b^2+3 A b^3-5 a^3 C+3 a^2 b C+6 a b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(3(a-b)^2 b^2(a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)-$$

$$\frac{10 a C \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{b^3 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{2\left(A b^2+a^2 C\right) \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^{3/2} \text{Sec}[c+d x]^{3/2}}+$$

$$\frac{2\left(a^2 A b^2+3 A b^4-5 a^4 C+9 a^2 b^2 C\right) \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{\left(8 A b^4-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{d} \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}\left(-\frac{4\left(-2 A b^4+3 a^4 C-5 a^2 b^2 C\right) \text{Sin}[c+d x]}{3 b^3\left(a^2-b^2\right)^2}-\frac{2\left(a^2 A b^2 \text{Sin}[c+d x]+a^4 C \text{Sin}[c+d x]\right)}{3 b^3\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\right.$$

$$\left.\frac{2\left(a^3 A b^2 \text{Sin}[c+d x]-5 a A b^4 \text{Sin}[c+d x]+7 a^5 C \text{Sin}[c+d x]-11 a^3 b^2 C \text{Sin}[c+d x]\right)}{3 b^3\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)-$$

$$\frac{1}{3 b^3\left(a^2-b^2\right)^2 d\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(8 a A b^4 \text{Tan}\left[\frac{1}{2}(c+d x)\right]+8 A b^5 \text{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^5 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]-\right.$$

$$15 a^4 b C \text{Tan}\left[\frac{1}{2}(c+d x)\right]+26 a^3 b^2 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]+26 a^2 b^3 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]-3 a b^4 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$3 b^5 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]-16 A b^5 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3+30 a^4 b C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3-52 a^2 b^3 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$6 b^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 - 8 a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 8 A b^5 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 15 a^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 -$$

$$15 a^4 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 26 a^3 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 26 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 3 a b^4 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 -$$

$$3 b^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 30 a^5 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 60 a^3 b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$30 a b^4 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 30 a^5 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$60 a^3 b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 30 a b^4 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$(a+b)\left(-8 A b^4 + \left(15 a^4 - 26 a^2 b^2 + 3 b^4\right) C\right) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$2 b (a+b)\left(3 A b^3 - 5 a^3 C + 3 a^2 b C + a b^2 (A+6 C)\right) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b \operatorname{Cos}[c+d x])\left(B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^2, x, 4, 0\right\}$$

$$(b B+a C) x + \frac{a B \operatorname{ArcTanh}[\operatorname{Sin}[c+d x]]}{d} + \frac{b C \operatorname{Sin}[c+d x]}{d}$$

$$\frac{b\,B\,d\,x+a\,C\,d\,x-a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+b\,C\,\text{Sin}[c+d\,x]}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 4,\ 0\right\}$$

$$b\,C\,x+\frac{(b\,B+a\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{d}+\frac{a\,B\,\text{Tan}[c+d\,x]}{d}$$

$$\frac{1}{d}\left(b\,C\,d\,x-(b\,B+a\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$\left.b\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+a\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+a\,B\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$\frac{(a\,B+2\,b\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}+\frac{(b\,B+a\,C)\,\text{Tan}[c+d\,x]}{d}+\frac{a\,B\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}\left(-2\,(a\,B+2\,b\,C)\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+\right.$$
$$2\,a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+4\,b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]+$$
$$\left.\frac{a\,B}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,B}{\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+4\,(b\,B+a\,C)\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{(3\,a\,B+4\,b\,C)\,\text{ArcTanh}[\text{Sin}[c+d\,x]]}{8\,d}+\frac{2\,(b\,B+a\,C)\,\text{Tan}[c+d\,x]}{3\,d}+$$
$$\frac{(3\,a\,B+4\,b\,C)\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{8\,d}+\frac{(b\,B+a\,C)\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,B\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{4\,d}$$
$$-\frac{3\,a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}-\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{3\,a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$
$$\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}-$$
$$\frac{3\,a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$
$$\frac{2\,b\,B\,\text{Tan}[c+d\,x]}{3\,d}+\frac{2\,a\,C\,\text{Tan}[c+d\,x]}{3\,d}+\frac{b\,B\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,C\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^2\,(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\}$$

$$\left(b^2\,B+2\,a\,b\,C\right)x+\frac{a\,(2\,b\,B+a\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{d}-\frac{b\,(a\,B-b\,C)\,\mathrm{Sin}[c+d\,x]}{d}+\frac{a\,B\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{d}$$

$$\frac{1}{d}\left(b^2\,B\,c+2\,a\,b\,c\,C+b^2\,B\,d\,x+2\,a\,b\,C\,d\,x-2\,a\,b\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-\right.$$
$$a^2\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+2\,a\,b\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\left.a^2\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+b^2\,C\,\mathrm{Sin}[c+d\,x]+a^2\,B\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^2\,(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\}$$

$$b^2\,C\,x+\frac{\left(a^2\,B+2\,b^2\,B+4\,a\,b\,C\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{2\,d}+\frac{a\,(3\,b\,B+2\,a\,C)\,\mathrm{Tan}[c+d\,x]}{2\,d}+\frac{a\,B\,(b+a\,\mathrm{Sec}[c+d\,x])\,\mathrm{Tan}[c+d\,x]}{2\,d}$$

$$\frac{1}{4\,d}\left(4\,b^2\,c\,C+4\,b^2\,C\,d\,x-2\,\left(a^2\,B+2\,b^2\,B+4\,a\,b\,C\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$2\,a^2\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+4\,b^2\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$8\,a\,b\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\frac{a^2\,B}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-$$
$$\left.\frac{a^2\,B}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+4\,a\,(2\,b\,B+a\,C)\,\mathrm{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(a+b\,\mathrm{Cos}[c+d\,x])^2\,(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2)\,\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\}$$

$$\frac{\left(3\,a^2\,B+4\,b^2\,B+8\,a\,b\,C\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+$$
$$\frac{\left(4\,a\,b\,B+2\,a^2\,C+3\,b^2\,C\right)\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{\left(3\,a^2\,B+4\,b^2\,B+8\,a\,b\,C\right)\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+$$
$$\frac{a\,(5\,b\,B+4\,a\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{a\,B\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$\frac{1}{48\,d}\left(-6\left(3a^2B+4b^2B+8abC\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$

$$6\left(3a^2B+4b^2B+8abC\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\frac{3a^2B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+$$

$$\frac{12b^2B+8ab(B+3C)+a^2(9B+4C)}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{8a(2bB+aC)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+$$

$$\frac{16\left(4abB+2a^2C+3b^2C\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]}-\frac{3a^2B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+$$

$$\left.\frac{8a(2bB+aC)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}-\frac{12b^2B+8ab(B+3C)+a^2(9B+4C)}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{16\left(4abB+2a^2C+3b^2C\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^3\left(B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^5,\ x,\ 6,\ 0\right\}$$

$$b^3Cx+\frac{\left(3a^2bB+2b^3B+a^3C+6ab^2C\right)\text{ArcTanh}[\text{Sin}[c+dx]]}{2d}+\frac{a\left(4a^2B+11b^2B+15abC\right)\text{Tan}[c+dx]}{6d}+$$

$$\frac{a(5bB+3aC)(b+a\,\text{Sec}[c+dx])\text{Tan}[c+dx]}{6d}+\frac{aB(b+a\,\text{Sec}[c+dx])^2\text{Tan}[c+dx]}{3d}$$

$$\frac{1}{12\,d}\left(12b^3C(c+dx)-6\left(3a^2bB+2b^3B+a^3C+6ab^2C\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$

$$6\left(3a^2bB+2b^3B+a^3C+6ab^2C\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\frac{a^2(9bB+a(B+3C))}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{2a^3B\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{4a\left(2a^2B+9b^2B+9abC\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]}+$$

$$\left.\frac{2a^3B\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}-\frac{a^2(9bB+a(B+3C))}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{4a\left(2a^2B+9b^2B+9abC\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^3\left(B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{\left(3a^3B+12ab^2B+12a^2bC+8b^3C\right)\text{ArcTanh}[\text{Sin}[c+dx]]}{8d}+$$

$$\frac{\left(6a^2bB+3b^3B+2a^3C+9ab^2C\right)\text{Tan}[c+dx]}{3d}+\frac{a\left(9a^2B+18b^2B+28abC\right)\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{24d}+$$

$$\frac{a(3bB+2aC)(a+b\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^2\,\text{Tan}[c+dx]}{6d}+\frac{aB(a+b\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^3\,\text{Tan}[c+dx]}{4d}$$

$$\frac{1}{48\,d}\left(-6\left(3a^3B+12ab^2B+12a^2bC+8b^3C\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$

$$6\left(3a^3B+12ab^2B+12a^2bC+8b^3C\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+$$

$$\frac{3a^3B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{a\left(36b^2B+12ab(B+3C)+a^2(9B+4C)\right)}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\frac{8a^2(3bB+aC)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}+\frac{16\left(6a^2bB+3b^3B+2a^3C+9ab^2C\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]}-$$

$$\frac{3a^3B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^4}+\frac{8a^2(3bB+aC)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^3}-$$

$$\left.\frac{a\left(36b^2B+12ab(B+3C)+a^2(9B+4C)\right)}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{16\left(6a^2bB+3b^3B+2a^3C+9ab^2C\right)\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^4}{a+b\,\text{Cos}[c+dx]},\ x,\ 6,\ 0\right\}$$

$$-\frac{2b^2(bB-aC)\,\text{ArcTan}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\sqrt{a^2-b^2}\,d}+$$

$$\frac{\left(a^2B+2b^2B-2abC\right)\text{ArcTanh}[\text{Sin}[c+dx]]}{2a^3d}-\frac{(bB-aC)\,\text{Tan}[c+dx]}{a^2d}+\frac{B\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]}{2ad}$$

$$\frac{1}{4a^3d}\left(\frac{8b^2(bB-aC)\,\text{ArcTanh}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}-2\left(a^2B+2b^2B-2abC\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\right.$$

$$2\left(a^2B+2b^2B-2abC\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+\frac{a^2B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+$$

$$\left.\frac{4a(-bB+aC)\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]-\text{Sin}\left[\frac{1}{2}(c+dx)\right]}-\frac{a^2B}{\left(\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]\right)^2}+\frac{4a(-bB+aC)\,\text{Sin}\left[\frac{1}{2}(c+dx)\right]}{\text{Cos}\left[\frac{1}{2}(c+dx)\right]+\text{Sin}\left[\frac{1}{2}(c+dx)\right]}\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+dx])^{5/2}\left(B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^6,\ x,\ 13,\ 0\right\}$$

$$-\frac{(a+b)\left(284a^2bB+15b^3B+128a^3C+264ab^2C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{192\,a\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(356a^2bB+133b^3B+128a^3C+472ab^2C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{192\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(48a^4B+120a^2b^2B-5b^4B+160a^3bC+40ab^3C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{64\,a\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(284a^2bB+15b^3B+128a^3C+264ab^2C\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}[c+dx]}{192\,a\,d}+$$

$$\frac{\left(36a^2B+59b^2B+104abC\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{96\,d}+$$

$$\frac{a\,(11bB+8aC)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]^2\,\mathrm{Tan}[c+dx]}{24\,d}+\frac{a\,B\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sec}[c+dx]^3\,\mathrm{Tan}[c+dx]}{4\,d}$$

$$\frac{1}{768\,a\,d}\left(\frac{2\left(144\,a^3\,b\,B+236\,a\,b^3\,B+416\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\right.$$

$$\frac{2\left(288\,a^4\,B+436\,a^2\,b^2\,B-45\,b^4\,B+832\,a^3\,b\,C-24\,a\,b^3\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\left(2\,i\,\left(-284\,a^2\,b^2\,B-15\,b^4\,B-128\,a^3\,b\,C-264\,a\,b^3\,C\right)\sqrt{\frac{b-b\,\text{Cos}[c+d\,x]}{a+b}}\;\sqrt{-\frac{b+b\,\text{Cos}[c+d\,x]}{a-b}}\right.$$

$$\text{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\text{EllipticPi}\left[\frac{a+b}{a},\,i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\;\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\text{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\sqrt{-\frac{1}{a+b}}\;\sqrt{1-\text{Cos}[c+d\,x]^2}\;\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\text{Cos}[c+d\,x])+(a+b\,\text{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\text{Cos}[c+d\,x])+2\,(a+b\,\text{Cos}[c+d\,x])^2\right)\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{1}{24}\,\text{Sec}[c+d\,x]^3\left(17\,a\,b\,B\,\text{Sin}[c+d\,x]+8\,a^2\,C\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{1}{96}\,\text{Sec}[c+d\,x]^2\left(36\,a^2\,B\,\text{Sin}[c+d\,x]+59\,b^2\,B\,\text{Sin}[c+d\,x]+104\,a\,b\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{\text{Sec}[c+d\,x]\left(284\,a^2\,b\,B\,\text{Sin}[c+d\,x]+15\,b^3\,B\,\text{Sin}[c+d\,x]+128\,a^3\,C\,\text{Sin}[c+d\,x]+264\,a\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{192\,a}+$$

$$\left.\frac{1}{4}\,a^2\,B\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,10,\,0\right\}$$

$$-\frac{(a+b)\,B\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{B\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(b\,B-2\,a\,C)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{B\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}[c+d\,x]}{a\,d}$$

$$\frac{B\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,(C+B\,\mathrm{Sec}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{a\,d\,(B+C\,\mathrm{Cos}[c+d\,x])}-\frac{1}{4\,a\,d\,(B+C\,\mathrm{Cos}[c+d\,x])}$$

$$\mathrm{Cos}[c+d\,x]\,(C+B\,\mathrm{Sec}[c+d\,x])\left(\frac{2\,(3\,b\,B-4\,a\,C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\right.$$

$$\left(2\,i\,b\,B\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\,\mathrm{Cos}[2\,(c+d\,x)]\right.$$

$$\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\right.\right.\right.\right.$$

$$\left.\left.\left.\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)$$

$$\left.\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\sqrt{-\frac{1}{a+b}}\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{2\,(b\,B-a\,C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,(a-b)\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,B\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a\,d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{2\,(b\,B-a\,C)\,\mathrm{Tan}[c+d\,x]}{\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,(b\,B-a\,C)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{a\left(a^2-b^2\right)d}$$

$$\frac{1}{2\,a\,d\,(B+C\,\mathrm{Cos}[c+d\,x])}\,\mathrm{Cos}[c+d\,x]\,(C+B\,\mathrm{Sec}[c+d\,x])\left(-\frac{1}{(-a+b)\,(a+b)}\left(\frac{4\,a\,(-b\,B+a\,C)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.\right.$$

$$\frac{2\,\left(2\,a^2\,B-3\,b^2\,B+a\,b\,C\right)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{1}{a\,b\,\sqrt{-\frac{1}{a+b}}}$$

$$2\,i\,(b\,B-a\,C)\,\sqrt{-\frac{b\,(-1+\mathrm{Cos}[c+d\,x])}{a+b}}\,\sqrt{\frac{b\,(1+\mathrm{Cos}[c+d\,x])}{-a+b}}\,\mathrm{Csc}[c+d\,x]$$

$$\left(-2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(-2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$\left.\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\right)+\frac{4\,b\,(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\,\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\,x,\,11,\,0\right\}$$

$$-\frac{2\,\left(7\,a^2\,b\,B-3\,b^3\,B-4\,a^3\,C\right)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,(b\,B-a\,C)\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{3\,a\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,B\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{2\,(b\,B-a\,C)\,\mathrm{Tan}[c+d\,x]}{3\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}-$$

$$\frac{2\,\left(6\,a^2\,b\,B-2\,b^3\,B-3\,a^3\,C-a\,b^2\,C\right)\,\mathrm{Tan}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,\left(7\,a^2\,b\,B-3\,b^3\,B-4\,a^3\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d}$$

$$\frac{1}{6 a^2 (a-b)^2 (a+b)^2 d (B+C \operatorname{Cos}[c+d x])}$$

$$\operatorname{Cos}[c+d x] (C+B \operatorname{Sec}[c+d x]) \left(\frac{2 \left(-12 a^3 b B+4 a b^3 B+6 a^4 C+2 a^2 b^2 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}+\right.$$

$$\frac{2 \left(6 a^4 B-19 a^2 b^2 B+9 b^4 B+4 a^3 b C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\left(2 i \left(-7 a^2 b^2 B+3 b^4 B+4 a^3 b C\right) \sqrt{\frac{b-b \operatorname{Cos}[c+d x]}{a+b}} \sqrt{-\frac{b+b \operatorname{Cos}[c+d x]}{a-b}} \operatorname{Cos}[2 (c+d x)]\right.$$

$$\left(2 a (a-b) \operatorname{EllipticE}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]+b \left(2 a \operatorname{EllipticF}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\right.\right.\right.\right.$$

$$\left.\left.\left.\sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]-b \operatorname{EllipticPi}\left[\frac{a+b}{a}, i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]\right)\right)$$

$$\left.\operatorname{Sin}[c+d x]\right) \Big/ \left(a \sqrt{-\frac{1}{a+b}} \sqrt{1-\operatorname{Cos}[c+d x]^2} \sqrt{-\frac{a^2-b^2-2 a (a+b \operatorname{Cos}[c+d x])+(a+b \operatorname{Cos}[c+d x])^2}{b^2}}\right.$$

$$\left.\left.\left(2 a^2-b^2-4 a (a+b \operatorname{Cos}[c+d x])+2 (a+b \operatorname{Cos}[c+d x])^2\right)\right)\right)+$$

$$\frac{\operatorname{Cos}[c+d x] \sqrt{a+b \operatorname{Cos}[c+d x]} (C+B \operatorname{Sec}[c+d x]) \left(-\frac{2 \left(-b^2 B \operatorname{Sin}[c+d x]+a b C \operatorname{Sin}[c+d x]\right)}{3 a \left(a^2-b^2\right) (a+b \operatorname{Cos}[c+d x])^2}-\frac{2 \left(-7 a^2 b^2 B \operatorname{Sin}[c+d x]+3 b^4 B \operatorname{Sin}[c+d x]+4 a^3 b C \operatorname{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])}\right)}{d (B+C \operatorname{Cos}[c+d x])}$$

Incorrect antiderivative:

$$\left\{\frac{\left(B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^3}{(a+b \operatorname{Cos}[c+d x])^{5/2}}, x, 12, 0\right\}$$

$$-\frac{\left(3 a^4 B-26 a^2 b^2 B+15 b^4 B+14 a^3 b C-6 a b^3 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{3 a^3 (a-b)^2 (a+b) d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{\left(3 a^2 B-5 b^2 B+2 a b C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{3 a^2 \left(a^2-b^2\right) d \sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\frac{(5 b B-2 a C) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{a^3 d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{\left(3 a^4 B-26 a^2 b^2 B+15 b^4 B+14 a^3 b C-6 a b^3 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}[c+d x]}{3 a^3 \left(a^2-b^2\right)^2 d}-$$

$$\frac{2 (b B-a C) \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{3 \left(a^2-b^2\right) d (a+b \operatorname{Cos}[c+d x])^{3/2}}-\frac{2 \left(8 a^2 b B-4 b^3 B-5 a^3 C+a b^2 C\right) \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{3 a \left(a^2-b^2\right)^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{2 \left(9 a^2 b B-5 b^3 B-6 a^3 C+2 a b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{3 a^2 \left(a^2-b^2\right)^2 d}$$

$$\frac{1}{12 a^3 (-a+b)^2 (a+b)^2 d (B+C \operatorname{Cos}[c+d x])}$$

$$\operatorname{Cos}[c+d x] (C+B \operatorname{Sec}[c+d x]) \left(\frac{2 \left(36 a^3 b^2 B-20 a b^4 B-24 a^4 b C+8 a^2 b^3 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}+\right.$$

$$\frac{2 \left(-33 a^4 b B+86 a^2 b^3 B-45 b^5 B+12 a^5 C-38 a^3 b^2 C+18 a b^4 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\left(2 i \left(-3 a^4 b B+26 a^2 b^3 B-15 b^5 B-14 a^3 b^2 C+6 a b^4 C\right) \sqrt{\frac{b-b \operatorname{Cos}[c+d x]}{a+b}} \sqrt{-\frac{b+b \operatorname{Cos}[c+d x]}{a-b}}\right.$$

$$\operatorname{Cos}[2 (c+d x)] \left(2 a (a-b) \operatorname{EllipticE}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]+\right.$$

$$b \left(2 a \operatorname{EllipticF}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b \operatorname{EllipticPi}\left[\frac{a+b}{a}, i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]\right)\right) \operatorname{Sin}[c+d x]\right) \Big/$$

$$\left(a \sqrt{-\frac{1}{a+b}} \sqrt{1-\operatorname{Cos}[c+d x]^2} \sqrt{-\frac{a^2-b^2-2 a (a+b \operatorname{Cos}[c+d x])+(a+b \operatorname{Cos}[c+d x])^2}{b^2}}\right.$$

$$\left.\left(2 a^2-b^2-4 a (a+b \operatorname{Cos}[c+d x])+2 (a+b \operatorname{Cos}[c+d x])^2\right)\right)+$$

$$\frac{1}{d (B+C \operatorname{Cos}[c+d x])} \operatorname{Cos}[c+d x] \sqrt{a+b \operatorname{Cos}[c+d x]} (C+B \operatorname{Sec}[c+d x])$$

$$\left(\frac{2 \left(-b^3 B \operatorname{Sin}[c+d x]+a b^2 C \operatorname{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right) (a+b \operatorname{Cos}[c+d x])^2}+\right.$$

$$\left.\frac{2 \left(-10 a^2 b^3 B \operatorname{Sin}[c+d x]+6 b^5 B \operatorname{Sin}[c+d x]+7 a^3 b^2 C \operatorname{Sin}[c+d x]-3 a b^4 C \operatorname{Sin}[c+d x]\right)}{3 a^3 \left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])}+\frac{B \operatorname{Tan}[c+d x]}{a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\operatorname{Cos}[c+d x]^{5/2} \left(B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right)}{a+b \operatorname{Cos}[c+d x]}, x, 8, 0\right\}$$

$$\frac{2 \left(5 a^2 b B+3 b^3 B-5 a^3 C-3 a b^2 C\right) \operatorname{EllipticE}\left[\frac{1}{2} (c+d x), 2\right]}{5 b^4 d}-$$

$$\frac{2 \left(21 a^3 b B+7 a b^3 B-21 a^4 C-7 a^2 b^2 C-5 b^4 C\right) \operatorname{EllipticF}\left[\frac{1}{2} (c+d x), 2\right]}{21 b^5 d}+\frac{2 a^4 (b B-a C) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right]}{b^5 (a+b) d}-$$

$$\frac{2 \left(7 a b B-7 a^2 C-5 b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{21 b^3 d}+\frac{2 (b B-a C) \operatorname{Cos}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{5 b^2 d}+\frac{2 C \operatorname{Cos}[c+d x]^{5/2} \operatorname{Sin}[c+d x]}{7 b d}$$

$$\frac{1}{210\,b^3\,d}\left(\frac{2\left(35\,a^2\,b\,B+63\,b^3\,B-35\,a^3\,C-13\,a\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{4\left(28\,a\,b\,B-28\,a^2\,C+25\,b^2\,C\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$2\sqrt{\text{Cos}[c+d\,x]}\,\left(-70\,a\,b\,B+70\,a^2\,C+65\,b^2\,C+42\,b\,(b\,B-a\,C)\,\text{Cos}[c+d\,x]+15\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]\right)\text{Sin}[c+d\,x]-$$

$$\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}42\left(5\,a^2+3\,b^2\right)(-b\,B+a\,C)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$-\frac{2\left(5\,a\,b\,B-5\,a^2\,C-3\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,b^3\,d}+\frac{2\left(3\,a^2\,b\,B+b^3\,B-3\,a^3\,C-a\,b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\,d}-$$

$$\frac{2\,a^3\,(b\,B-a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^4\,(a+b)\,d}+\frac{2\,(b\,B-a\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b^2\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b\,d}$$

$$\frac{1}{30\,b^2\,d}\left(\frac{2\left(-5\,a\,b\,B+5\,a^2\,C+9\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{4\,(5\,b\,B+4\,a\,C)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$4\sqrt{\text{Cos}[c+d\,x]}\,\left(5\,b\,B-5\,a\,C+3\,b\,C\,\text{Cos}[c+d\,x]\right)\text{Sin}[c+d\,x]+\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}6\left(-5\,a\,b\,B+5\,a^2\,C+3\,b^2\,C\right)$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+\right.$$

$$\left.\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{2\,(b\,B-a\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}-\frac{2\left(3\,a\,b\,B-3\,a^2\,C-b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^3\,d}+$$

$$\frac{2\,a^2\,(b\,B-a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,(a+b)\,d}+\frac{2\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b\,d}$$

$$\frac{1}{3\,b\,d}\left(\frac{(3\,b\,B-a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+C\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)+2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]-\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,3\,(b\,B-a\,C)\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])},\,x,\,6,\,0\right\}$$

$$\frac{2\,C\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b\,d}+\frac{2\,(b\,B-a\,C)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}-\frac{2\,a\,(b\,B-a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,(a+b)\,d}$$

$$\frac{1}{b^2\,d}\left(b\,B\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)-\frac{1}{\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,C\left(b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-a\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])},\,x,\,6,\,0\right\}$$

$$-\frac{2\,B\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,d}-\frac{2\,(b\,B-a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,(a+b)\,d}+\frac{2\,B\,\text{Sin}[c+d\,x]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{2\,a\,d}\left(\frac{2\,(-3\,b\,B+2\,a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\frac{2\,a\,B\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}+\frac{4\,B\,\text{Sin}[c+d\,x]}{\sqrt{\text{Cos}[c+d\,x]}}-\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,B\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{9/2}\,(a+b\,\mathrm{Cos}[c+d\,x])},\ x,\ 9,\ 0\right\}$$

$$-\frac{2\left(3\,a^2\,B+5\,b^2\,B-5\,a\,b\,C\right)\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,a^3\,d}-$$

$$\frac{2\,(b\,B-a\,C)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,d}-\frac{2\,b^2\,(b\,B-a\,C)\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a^3\,(a+b)\,d}+$$

$$\frac{2\,B\,\mathrm{Sin}[c+d\,x]}{5\,a\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}-\frac{2\,(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\left(3\,a^2\,B+5\,b^2\,B-5\,a\,b\,C\right)\mathrm{Sin}[c+d\,x]}{5\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{30\,a^3\,d}\left(\frac{2\left(-19\,a^2\,b\,B-45\,b^3\,B+10\,a^3\,C+45\,a\,b^2\,C\right)\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}-\right.$$

$$\frac{2\,a\left(9\,a^2\,B+20\,b^2\,B-20\,a\,b\,C\right)\left(2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-\frac{2\,a\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}\,(c+d\,x),2\right]}{a+b}\right)}{b}+$$

$$\frac{4\left(3\left(3\,a^2\,B+5\,b^2\,B-5\,a\,b\,C\right)+5\,a\,(-b\,B+a\,C)\,\mathrm{Sec}[c+d\,x]+3\,a^2\,B\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}[c+d\,x]}{\sqrt{\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{1}{a\,b\,\sqrt{\mathrm{Sin}[c+d\,x]^2}}6\left(3\,a^2\,B+5\,b^2\,B-5\,a\,b\,C\right)\left(-2\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+\left(2\,a^2-b^2\right)\mathrm{EllipticPi}\left[-\frac{b}{a},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]\right)\mathrm{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 8,\ 0\right\}$$

$$-\frac{\left(25\,a^3\,b\,B-20\,a\,b^3\,B-35\,a^4\,C+24\,a^2\,b^2\,C+6\,b^4\,C\right)\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,b^4\left(a^2-b^2\right)d}+$$

$$\frac{\left(15\,a^4\,b\,B-16\,a^2\,b^3\,B-2\,b^5\,B-21\,a^5\,C+20\,a^3\,b^2\,C+4\,a\,b^4\,C\right)\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,b^5\left(a^2-b^2\right)d}-$$

$$\frac{a^3\left(5\,a^2\,b\,B-7\,b^3\,B-7\,a^3\,C+9\,a\,b^2\,C\right)\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{(a-b)\,b^5\,(a+b)^2\,d}+$$

$$\frac{\left(5\,a^2\,b\,B-2\,b^3\,B-7\,a^3\,C+4\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,b^3\left(a^2-b^2\right)d}-$$

$$\frac{\left(5\,a\,b\,B-7\,a^2\,C+2\,b^2\,C\right)\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,b^2\left(a^2-b^2\right)d}+\frac{a\,(b\,B-a\,C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{60 b^3 d}\left(\frac{1}{(a-b)(a+b)}\left(\frac{2\left(-25 a^3 b B+40 a b^3 B+35 a^4 C-32 a^2 b^2 C-18 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\frac{8\left(-10 a^2 b B-5 b^3 B+14 a^3 C+a b^2 C\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 6\left(-25 a^3 b B+20 a b^3 B+35 a^4 C-24 a^2 b^2 C-6 b^4 C\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\right)+4 \sqrt{\text{Cos}[c+d x]}\left(10(b B-2 a C) \text{Sin}[c+d x]+\frac{15 a^3(b B-a C) \text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}+3 b C \text{Sin}[2(c+d x)]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2}\left(B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^2}, x, 7, 0\right\}$$

$$\frac{\left(3 a^2 b B-2 b^3 B-5 a^3 C+4 a b^2 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{b^3\left(a^2-b^2\right) d}-\frac{\left(9 a^3 b B-12 a b^3 B-15 a^4 C+16 a^2 b^2 C+2 b^4 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{3 b^4\left(a^2-b^2\right) d}+\frac{a^2\left(3 a^2 b B-5 b^3 B-5 a^3 C+7 a b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{(a-b) b^4(a+b)^2 d}-\frac{\left(3 a b B-5 a^2 C+2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right) d}+\frac{a(b B-a C) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{b\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{12 b^2 d}\left(4 \sqrt{\text{Cos}[c+d x]}\left(2 C+\frac{3 a^2(-b B+a C)}{\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}\right) \text{Sin}[c+d x]-\frac{1}{(a-b)(a+b)}\left(\frac{2\left(-3 a^2 b B+6 b^3 B+5 a^3 C-8 a b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\frac{8\left(-3 a b B+2 a^2 C+b^2 C\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 6\left(-3 a^2 b B+2 b^3 B+5 a^3 C-4 a b^2 C\right)\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\left(B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^2}, x, 6, 0\right\}$$

$$-\frac{\left(a\,b\,B-3\,a^2\,C+2\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,\left(a^2-b^2\right)\,d}+\frac{\left(a^2\,b\,B-2\,b^3\,B-3\,a^3\,C+4\,a\,b^2\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,\left(a^2-b^2\right)\,d}-$$

$$\frac{a\,\left(a^2\,b\,B-3\,b^3\,B-3\,a^3\,C+5\,a\,b^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^3\,(a+b)^2\,d}+\frac{a\,(b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4\,b\,d}\left(-\frac{4\,a\,(-b\,B+a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+\frac{1}{(a-b)\,(a+b)}\left(\frac{2\,\left(a\,b\,B+a^2\,C-2\,b^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.\right.$$

$$\frac{8\,(-b\,B+a\,C)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,\left(-a\,b\,B+3\,a^2\,C-2\,b^2\,C\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,6,\,0\right\}$$

$$\frac{(b\,B-a\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b\,\left(a^2-b^2\right)\,d}+\frac{\left(a\,b\,B+a^2\,C-2\,b^2\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,\left(a^2-b^2\right)\,d}-$$

$$\frac{\left(a^2\,b\,B+b^3\,B+a^3\,C-3\,a\,b^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{(a-b)\,b^2\,(a+b)^2\,d}-\frac{(b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4\,d}\left(\frac{4\,(-b\,B+a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}-\frac{1}{(-a+b)\,(a+b)}\right.$$

$$\left(\frac{2\,(-b\,B+a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{(4\,a\,B-4\,b\,C)\,\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}-\right.$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,2\,(b\,B-a\,C)\,\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$-\frac{(b B-a C)\,\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a\left(a^2-b^2\right)d}-\frac{(b B-a C)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b\left(a^2-b^2\right)d}+$$

$$\frac{\left(3 a^2 b B-b^3 B-a^3 C-a b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a(a-b)\,b\,(a+b)^2 d}+$$

$$\frac{(b B-a C)\,\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}}-\frac{(b B-a C)\,\text{Sin}[c+d x]}{\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{4 a d}\left(\frac{4 b\,(b B-a C)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}+\frac{1}{(a-b)(a+b)}\left(\frac{2\left(4 a^2 B-3 b^2 B-a b C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{4 a(-b B+a C)\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}+\frac{1}{a b\sqrt{\text{Sin}[c+d x]^2}}$$

$$2(b B-a C)\left(2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]-2 a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left.\left(-2 a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{5/2}\,(a+b\,\text{Cos}[c+d x])^2},x,8,0\right\}$$

$$-\frac{\left(2 a^2 B-3 b^2 B+a b C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a^2\left(a^2-b^2\right)d}+\frac{(b B-a C)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{a\left(a^2-b^2\right)d}-$$

$$\frac{\left(5 a^2 b B-3 b^3 B-3 a^3 C+a b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^2(a-b)(a+b)^2 d}+\frac{(b B-a C)\,\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+d x]^{3/2}}+$$

$$\frac{\left(2 a^2 B-3 b^2 B+a b C\right)\text{Sin}[c+d x]}{a^2\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}}-\frac{(b B-a C)\,\text{Sin}[c+d x]}{\left(a^2-b^2\right)d\,\text{Cos}[c+d x]^{3/2}\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{4 a^2 d}\left(-\frac{1}{(-a+b)(a+b)}\left(\frac{2\left(-10 a^2 b B+9 b^3 B+4 a^3 C-3 a b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.\right.$$

$$\frac{8 a\left(a^2 B-2 b^2 B+a b C\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{b(a+b)}-$$

$$\frac{1}{a b\sqrt{\text{Sin}[c+d x]^2}}2\left(2 a^2 B-3 b^2 B+a b C\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)+$$

$$\left.4\sqrt{\text{Cos}[c+d x]}\left(\frac{b^2(b B-a C)\,\text{Sin}[c+d x]}{\left(-a^2+b^2\right)(a+b\,\text{Cos}[c+d x])}+2 B\,\text{Tan}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{7/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 9,\ 0\right\}$$

$$\frac{\left(4\,a^2\,b\,B-5\,b^3\,B-2\,a^3\,C+3\,a\,b^2\,C\right)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{a^3\,\left(a^2-b^2\right)\,d}+$$

$$\frac{\left(2\,a^2\,B-5\,b^2\,B+3\,a\,b\,C\right)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,a^2\,\left(a^2-b^2\right)\,d}+\frac{b\,\left(7\,a^2\,b\,B-5\,b^3\,B-5\,a^3\,C+3\,a\,b^2\,C\right)\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a^3\,(a-b)\,(a+b)^2\,d}+$$

$$\frac{(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+\frac{\left(2\,a^2\,B-5\,b^2\,B+3\,a\,b\,C\right)\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{\left(4\,a^2\,b\,B-5\,b^3\,B-2\,a^3\,C+3\,a\,b^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{a^3\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}-\frac{(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{5/2}\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{12\,a^3\,(a-b)\,(a+b)\,d}\left(\frac{2\,\left(4\,a^4\,B+44\,a^2\,b^2\,B-45\,b^4\,B-30\,a^3\,b\,C+27\,a\,b^3\,C\right)\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}+\right.$$

$$\frac{\left(28\,a^3\,b\,B-40\,a\,b^3\,B-12\,a^4\,C+24\,a^2\,b^2\,C\right)\,\left(2\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-\frac{2\,a\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}\,(c+d\,x),2\right]}{a+b}\right)}{b}+$$

$$\left(2\,\left(12\,a^2\,b^2\,B-15\,b^4\,B-6\,a^3\,b\,C+9\,a\,b^3\,C\right)\,\mathrm{Cos}[2\,(c+d\,x)]\,\left(-2\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+\right.\right.$$

$$\left.2\,a\,(a+b)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]+\left(2\,a^2-b^2\right)\,\mathrm{EllipticPi}\left[-\frac{b}{a},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Cos}[c+d\,x]}\right],\ -1\right]\right)$$

$$\left.\left.\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,b^2\,\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\,\left(-1+2\,\mathrm{Cos}[c+d\,x]^2\right)\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\,\left(\frac{2\,\mathrm{Sec}[c+d\,x]\,(-2\,b\,B\,\mathrm{Sin}[c+d\,x]+a\,C\,\mathrm{Sin}[c+d\,x])}{a^3}+\frac{b^4\,B\,\mathrm{Sin}[c+d\,x]-a\,b^3\,C\,\mathrm{Sin}[c+d\,x]}{a^3\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}+\frac{2\,B\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{3\,a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^{5/2}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 8,\ 0\right\}$$

$$\frac{\left(15\,a^4\,b\,B-29\,a^2\,b^3\,B+8\,b^5\,B-35\,a^5\,C+65\,a^3\,b^2\,C-24\,a\,b^4\,C\right)\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^4\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(45\,a^5\,b\,B-99\,a^3\,b^3\,B+72\,a\,b^5\,B-105\,a^6\,C+223\,a^4\,b^2\,C-128\,a^2\,b^4\,C-8\,b^6\,C\right)\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{12\,b^5\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{a^2\,\left(15\,a^4\,b\,B-38\,a^2\,b^3\,B+35\,b^5\,B-35\,a^5\,C+86\,a^3\,b^2\,C-63\,a\,b^4\,C\right)\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,(a-b)^2\,b^5\,(a+b)^3\,d}-$$

$$\frac{\left(15\,a^3\,b\,B-33\,a\,b^3\,B-35\,a^4\,C+61\,a^2\,b^2\,C-8\,b^4\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{12\,b^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{a\,(b\,B-a\,C)\,\mathrm{Cos}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+\frac{a\,\left(3\,a^2\,b\,B-9\,b^3\,B-7\,a^3\,C+13\,a\,b^2\,C\right)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,b^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$\frac{1}{48 b^3 d}\left(\frac{1}{\left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])^2} 4 \sqrt{\operatorname{Cos}[c+d x]}\left(-15 a^5 b B+33 a^3 b^3 B+35 a^6 C-57 a^4 b^2 C+4 b^6 C+\right.\right.$$
$$\left. a b\left(-21 a^3 b B+39 a b^3 B+49 a^4 C-83 a^2 b^2 C+16 b^4 C\right) \operatorname{Cos}[c+d x]+4\left(-a^2 b+b^3\right)^2 C \operatorname{Cos}[2(c+d x)]\right) \operatorname{Sin}[c+d x]-$$
$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{2\left(-15 a^4 b B+21 a^2 b^3 B-24 b^5 B+35 a^5 C-73 a^3 b^2 C+56 a b^4 C\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\right.$$
$$\frac{16\left(-3 a^3 b B+12 a b^3 B+7 a^4 C-14 a^2 b^2 C-2 b^4 C\right)\left((a+b) \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}$$
$$+\frac{1}{a b^2 \sqrt{\operatorname{Sin}[c+d x]^2}} 6\left(-15 a^4 b B+29 a^2 b^3 B-8 b^5 B+35 a^5 C-65 a^3 b^2 C+24 a b^4 C\right)$$
$$\left(-2 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]+2 a(a+b) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]+\right.$$
$$\left.\left.\left.\left(2 a^2-b^2\right) \operatorname{EllipticPi}\left[-\frac{b}{a},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]\right) \operatorname{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\operatorname{Cos}[c+d x]^{3/2}\left(B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right)}{(a+b \operatorname{Cos}[c+d x])^3}, x, 7, 0\right\}$$
$$-\frac{\left(3 a^3 b B-9 a b^3 B-15 a^4 C+29 a^2 b^2 C-8 b^4 C\right) \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]}{4 b^3\left(a^2-b^2\right)^2 d}+$$
$$\frac{\left(3 a^4 b B-5 a^2 b^3 B+8 b^5 B-15 a^5 C+33 a^3 b^2 C-24 a b^4 C\right) \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]}{4 b^4\left(a^2-b^2\right)^2 d}-$$
$$\frac{a\left(3 a^4 b B-6 a^2 b^3 B+15 b^5 B-15 a^5 C+38 a^3 b^2 C-35 a b^4 C\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{4(a-b)^2 b^4(a+b)^3 d}+$$
$$\frac{a(b B-a C) \operatorname{Cos}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{2 b\left(a^2-b^2\right) d(a+b \operatorname{Cos}[c+d x])^2}+\frac{a\left(a^2 b B-7 b^3 B-5 a^3 C+11 a b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{4 b^2\left(a^2-b^2\right)^2 d(a+b \operatorname{Cos}[c+d x])}$$

$$\frac{1}{8 b^2 d}$$
$$\left(-\frac{2 a \sqrt{\operatorname{Cos}[c+d x]}\left(a\left(-a^2 b B+7 b^3 B+5 a^3 C-11 a b^2 C\right)+b\left(-3 a^2 b B+9 b^3 B+7 a^3 C-13 a b^2 C\right) \operatorname{Cos}[c+d x]\right) \operatorname{Sin}[c+d x]}{\left(a^2-b^2\right)^2(a+b \operatorname{Cos}[c+d x])^2}+\right.$$
$$\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{\left(-a^3 b B-5 a b^3 B+5 a^4 C-7 a^2 b^2 C+8 b^4 C\right) \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]}{a+b}+\right.$$
$$\frac{8\left(a^2 b B+2 b^3 B+a^3 C-4 a b^2 C\right)\left((a+b) \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]-a \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right]\right)}{a+b}+$$
$$\frac{1}{a b^2 \sqrt{\operatorname{Sin}[c+d x]^2}}\left(-3 a^3 b B+9 a b^3 B+15 a^4 C-29 a^2 b^2 C+8 b^4 C\right)$$
$$\left(-2 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]+2 a(a+b) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]+\right.$$
$$\left.\left.\left.\left(2 a^2-b^2\right) \operatorname{EllipticPi}\left[-\frac{b}{a},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Cos}[c+d x]}\right],-1\right]\right) \operatorname{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{\left(a^2\,b\,B+5\,b^3\,B+3\,a^3\,C-9\,a\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^2\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(a^3\,b\,B-7\,a\,b^3\,B+3\,a^4\,C-5\,a^2\,b^2\,C+8\,b^4\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^3\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(a^4\,b\,B-10\,a^2\,b^3\,B-3\,b^5\,B+3\,a^5\,C-6\,a^3\,b^2\,C+15\,a\,b^4\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,(a-b)^2\,b^3\,(a+b)^3\,d}+$$

$$\frac{a\,(b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{\left(a^2\,b\,B+5\,b^3\,B+3\,a^3\,C-9\,a\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,b\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{8\,b\,d}\left(\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,\left(a\,\left(3\,a^2\,b\,B+3\,b^3\,B+a^3\,C-7\,a\,b^2\,C\right)+b\,\left(a^2\,b\,B+5\,b^3\,B+3\,a^3\,C-9\,a\,b^2\,C\right)\,\text{Cos}[c+d\,x]\right)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}-\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{\left(-5\,a^2\,b\,B-b^3\,B+a^3\,C+5\,a\,b^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}-\right.$$

$$\frac{8\,\left(-3\,a\,b\,B+a^2\,C+2\,b^2\,C\right)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\right)}{a+b}+$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\left(a^2\,b\,B+5\,b^3\,B+3\,a^3\,C-9\,a\,b^2\,C\right)\,\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+\left(2\,a^2-b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\ -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]\right)\,\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^3},\ x,\ 7,\ 0\right\}$$

$$\frac{\left(5\,a^2\,b\,B+b^3\,B-a^3\,C-5\,a\,b^2\,C\right)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d}+\frac{\left(3\,a^2\,b\,B+3\,b^3\,B+a^3\,C-7\,a\,b^2\,C\right)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,b^2\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(3\,a^4\,b\,B+10\,a^2\,b^3\,B-b^5\,B+a^5\,C-10\,a^3\,b^2\,C-3\,a\,b^4\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{4\,a\,(a-b)^2\,b^2\,(a+b)^3\,d}-$$

$$\frac{(b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{\left(5\,a^2\,b\,B+b^3\,B-a^3\,C-5\,a\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{16\,a\,d}\left(\frac{4\sqrt{\text{Cos}[c+d\,x]}\,\left(a\left(-7\,a^2\,b\,B+b^3\,B+3\,a^3\,C+3\,a\,b^2\,C\right)+b\left(-5\,a^2\,b\,B-b^3\,B+a^3\,C+5\,a\,b^2\,C\right)\text{Cos}[c+d\,x]\right)\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{2\left(-9\,a^2\,b\,B+3\,b^3\,B+5\,a^3\,C+a\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{16\,a\left(2\,a^2\,B+b^2\,B-3\,a\,b\,C\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{b\,(a+b)}-$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}2\left(-5\,a^2\,b\,B-b^3\,B+a^3\,C+5\,a\,b^2\,C\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,8,\,0\right\}$$

$$-\frac{\left(9\,a^2\,b\,B-3\,b^3\,B-5\,a^3\,C-a\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,\left(a^2-b^2\right)^2\,d}-\frac{\left(7\,a^2\,b\,B-b^3\,B-3\,a^3\,C-3\,a\,b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(15\,a^4\,b\,B-6\,a^2\,b^3\,B+3\,b^5\,B-3\,a^5\,C-10\,a^3\,b^2\,C+a\,b^4\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,(a-b)^2\,b\,(a+b)^3\,d}+$$

$$\frac{\left(9\,a^2\,b\,B-3\,b^3\,B-5\,a^3\,C-a\,b^2\,C\right)\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(b\,B-a\,C)\,\text{Sin}[c+d\,x]}{2\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^2}-$$

$$\frac{\left(7\,a^2\,b\,B-b^3\,B-3\,a^3\,C-3\,a\,b^2\,C\right)\text{Sin}[c+d\,x]}{4\,a\,\left(a^2-b^2\right)^2\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{8\,a^2\,d}\left(-\frac{2\,b\,\sqrt{\text{Cos}[c+d\,x]}\,\left(a\left(-11\,a^2\,b\,B+5\,b^3\,B+7\,a^3\,C-a\,b^2\,C\right)+b\left(-9\,a^2\,b\,B+3\,b^3\,B+5\,a^3\,C+a\,b^2\,C\right)\text{Cos}[c+d\,x]\right)\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{\left(16\,a^4\,B-19\,a^2\,b^2\,B+9\,b^4\,B-9\,a^3\,b\,C+3\,a\,b^3\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{8\,a\left(-4\,a^2\,b\,B+b^3\,B+2\,a^3\,C+a\,b^2\,C\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{b\,(a+b)}+$$

$$\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\left(-9\,a^2\,b\,B+3\,b^3\,B+5\,a^3\,C+a\,b^2\,C\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,9,\,0\right\}$$

$$-\frac{\left(8 a^4 B-29 a^2 b^2 B+15 b^4 B+9 a^3 b C-3 a b^3 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 a^3 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(11 a^2 b B-5 b^3 B-7 a^3 C+a b^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 a^2 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(35 a^4 b B-38 a^2 b^3 B+15 b^5 B-15 a^5 C+6 a^3 b^2 C-3 a b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 a^3 (a-b)^2 (a+b)^3 d}+$$

$$\frac{\left(11 a^2 b B-5 b^3 B-7 a^3 C+a b^2 C\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2}}+\frac{\left(8 a^4 B-29 a^2 b^2 B+15 b^4 B+9 a^3 b C-3 a b^3 C\right) \text{Sin}[c+d x]}{4 a^3 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}-$$

$$\frac{(b B-a C) \text{Sin}[c+d x]}{2 \left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2} (a+b \text{Cos}[c+d x])^2}-\frac{\left(9 a^2 b B-3 b^3 B-5 a^3 C-a b^2 C\right) \text{Sin}[c+d x]}{4 a \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2} (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{8 a^3 d}\left(-\frac{1}{(a-b)^2 (a+b)^2}\left(\frac{\left(56 a^4 b B-95 a^2 b^3 B+45 b^5 B-16 a^5 C+19 a^3 b^2 C-9 a b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.\right.$$

$$\frac{8 a \left(2 a^4 B-10 a^2 b^2 B+5 b^4 B+4 a^3 b C-a b^3 C\right)\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{b (a+b)}+$$

$$\frac{1}{a b \sqrt{\text{Sin}[c+d x]^2}}\left(8 a^4 B-29 a^2 b^2 B+15 b^4 B+9 a^3 b C-3 a b^3 C\right)$$

$$\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)+$$

$$\frac{1}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2}\sqrt{\text{Cos}[c+d x]}\left(2 a b \left(16 a^4 B-47 a^2 b^2 B+25 b^4 B+11 a^3 b C-5 a b^3 C\right) \text{Sin}[c+d x]+\right.$$

$$\left.\left.b^2 \left(8 a^4 B-29 a^2 b^2 B+15 b^4 B+9 a^3 b C-3 a b^3 C\right) \text{Sin}[2(c+d x)]+16 \left(a^3-a b^2\right)^2 B \text{Tan}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d x]}\sqrt{a+b \text{Cos}[c+d x]}\left(B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right), x, 8, 0\right\}$$

$$\frac{(a+b)\left(6 a b B-3 a^2 C+16 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{24 b^2 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{\left(6 a b B-12 b^2 B+a^2 C-14 a b C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{12 b d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(2 a^2 b B-8 b^3 B-a^3 C-4 a b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 b^2 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{(6 b B+a C)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{12 b d}+\frac{C \text{Cos}[c+d x]^{3/2}\sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 d}+$$

$$\frac{\left(6 a b B-3 a^2 C+16 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b^2 d}$$

$$-\frac{1}{48\,b\,d}\left(-\left(4\,a\left(-18\,a\,b\,B+a^2\,C-16\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-24\,b^2\,B-28\,a\,b\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+2\left(-6ab B+3a^2C-16b^2C\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\frac{1}{b}$$

$$2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{(6\,b\,B+a\,C)\,\mathrm{Sin}[c+d\,x]}{12\,b}+\frac{1}{6}\,C\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\;x,\;7,\;0\right\}$$

$$\frac{(a+b)\,(4\,b\,B+a\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(4\,a\,B-a\,C+2\,b\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a\,b\,B-a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{(4\,b\,B+a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d}$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(4\,b\,B+3\,a\,C)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,(8\,a\,B+4\,b\,C)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(4\,b\,B+a\,C)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{(a+b)\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,B-b\,B-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,b\,B+a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$-\frac{1}{d\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)}$$

$$\sqrt{\frac{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(a\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-a\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,a\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$4\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,a\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,C\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-2\,(b\,B+a\,(-B+C))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,(a+b)\,B\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,B+b\,B+a\,C-b\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{4\,b\,C\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,B\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{b+a\,\mathrm{Sec}[c+d\,x]}{a+b}}}$$

$$2\,\mathrm{Sec}[c+d\,x]\left(i\,B\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\ \frac{2\,a}{a+b}\right]+\right.$$

$$\sqrt{2}\,a\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])}{a^2\,(-1+\mathrm{Cos}[c+d\,x])^2}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a-b}}$$

$$\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{-\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a\,(-1+\mathrm{Cos}[c+d\,x])}}\right],\ \frac{2\,a}{a-b}\right]-\mathrm{EllipticPi}\left[-\frac{a}{b},\ \mathrm{ArcSin}\left[\sqrt{-\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a\,(-1+\mathrm{Cos}[c+d\,x])}}\right],\ \frac{2\,a}{a-b}\right]\right)$$

$$\left.\sqrt{1+\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{b+a\,\mathrm{Sec}[c+d\,x]}{a+b}}\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right),\ x,\ 9,\ 0\right\}$$

$$\frac{(a+b)\left(24a^2bB+128b^3B-9a^3C+156ab^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{192b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}$$

$$+\frac{1}{96bd\sqrt{a+b\,\text{Cos}[c+dx]}}\left(56a^2bB-208ab^2B+3a^3C-114a^2bC+36ab^2C-72b^3C\right)$$

$$\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{32b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}\left(8a^3bB-96ab^3B-3a^4C-24a^2b^2C-48b^4C\right)\sqrt{1+\text{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(56abB+3a^2C+36b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{96bd}+$$

$$\frac{(8bB+3aC)\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{24d}+\frac{C\,\text{Cos}[c+dx]^{3/2}(a+b\,\text{Cos}[c+dx])^{3/2}\,\text{Sin}[c+dx]}{4d}+$$

$$\frac{\left(24a^2bB+128b^3B-9a^3C+156ab^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{192b^2d}$$

$$-\frac{1}{384bd}\Bigg(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(-136a^2bB-128b^3B+3a^3C-228ab^2C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(-416ab^2B-228a^2bC-144b^3C\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-24\,a^2\,b\,B-128\,b^3\,B+9\,a^3\,C-156\,a\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}$$

$$2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{(56\,a\,b\,B+3\,a^2\,C+42\,b^2\,C)\,\text{Sin}[c+d\,x]}{96\,b}+\frac{1}{48}(8\,b\,B+9\,a\,C)\,\text{Sin}[2\,(c+d\,x)]+\frac{1}{16}\,b\,C\,\text{Sin}[3\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\sqrt{\text{Cos}[c+d\,x]}},\,x,\,8,\,0\right\}$$

$$\frac{(a+b)\left(30\,a\,b\,B+3\,a^2\,C+16\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{24\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{\left(24\,a^2\,B-6\,a\,b\,B+12\,b^2\,B-7\,a^2\,C+26\,a\,b\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{12\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(6\,a^2\,b\,B+8\,b^3\,B-a^3\,C+12\,a\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{4\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{(2\,b\,B+a\,C)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{C\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{\left(30\,a\,b\,B+3\,a^2\,C+16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{24\,b\,d}$$

$$\frac{1}{48\,d}\left(-\left(4\,a\,\left(42\,a\,b\,B+17\,a^2\,C+16\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\,\left(48\,a^2\,B+24\,b^2\,B+52\,a\,b\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(30\,a\,b\,B+3\,a^2\,C+16\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{1}{12}\,(6\,b\,B+7\,a\,C)\,\mathrm{Sin}[c+d\,x]+\frac{1}{6}\,b\,C\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{3/2}},\;x,\;8,\;0\right\}$$

$$\frac{(a+b)\,(4\,b\,B+5\,a\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a^2\,B-8\,a\,b\,B-4\,a^2\,C+a\,b\,C-2\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(12\,a\,b\,B+3\,a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{b\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{(4\,b\,B+5\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d}$$

$$\frac{b\,C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,\left(8\,a^2\,B+4\,b^2\,B+7\,a\,b\,C\right)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,\left(16\,a\,b\,B+8\,a^2\,C+4\,b^2\,C\right)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(4b^2B+5abC\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\right],-\frac{2a}{-a-b}\right]\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sec}[c+dx]}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{5/2}},x,8,0\right\}$$

$$-\frac{(a+b)\,(2\,a\,B-b\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(a^2\,B+2\,a\,b\,B-b^2\,B+a^2\,C-2\,a\,b\,C\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,b\,(2\,b\,B+3\,a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(2\,a\,B-b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{2\,a\,B\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,d}\left(\left(4\,a\,\left(-2\,a\,b\,B-2\,a^2\,C-b^2\,C\right)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+4\,a\,\left(2\,a^2\,B-2\,b^2\,B-4\,a\,b\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)-$$

$$2\left(2ab B-b^2 C\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{7/2}},\,x,\,8,\,0\right\}$$

$$-\frac{2\,(a+b)\,(4\,b\,B+3\,a\,C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(a^2\,B+4\,a\,b\,B+3\,b^2\,B+3\,a^2\,C+6\,a\,b\,C-3\,b^2\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^2\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,B\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,(4\,b\,B+3\,a\,C)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,d\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3d}\left(-\left(4a\left(a^2B-b^2B+3abC\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-4a\left(-4abB-3a^2C+3b^2C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(-4b^2B-3abC\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{2}{3}\mathrm{Sec}[c+dx]\,(4bB\,\mathrm{Sin}[c+dx]+3aC\,\mathrm{Sin}[c+dx])+\frac{2}{3}aB\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\Big)}{d}$$

Incorrect antiderivative:

$$\Big\{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right),\ x,\ 10,\ 0\Big\}$$

$$\frac{1}{1920\, b^2\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(150\, a^3\, b\, B+2840\, a\, b^3\, B-45\, a^4\, C+1692\, a^2\, b^2\, C+1024\, b^4\, C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{960\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(590\, a^3\, b\, B-3220\, a^2\, b^2\, B+360\, a\, b^3\, B-720\, b^4\, B+15\, a^4\, C-1146\, a^3\, b\, C+772\, a^2\, b^2\, C-2312\, a\, b^3\, C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{64\, b^2\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(10\, a^4\, b\, B-240\, a^2\, b^3\, B-96\, b^5\, B-3\, a^5\, C-40\, a^3\, b^2\, C-240\, a\, b^4\, C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(590\, a^2\, b\, B+360\, b^3\, B+15\, a^3\, C+772\, a\, b^2\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{960\, b\, d}+$$

$$\frac{\left(110\, a\, b\, B+15\, a^2\, C+64\, b^2\, C\right)\mathrm{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{240\, d}+$$

$$\frac{(2\, b\, B+a\, C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{8\, d}+\frac{C\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\, d}+$$

$$\frac{\left(150\, a^3\, b\, B+2840\, a\, b^3\, B-45\, a^4\, C+1692\, a^2\, b^2\, C+1024\, b^4\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{1920\, b^2\, d}$$

$$-\frac{1}{3840\, b\, d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}4\, a\left(-1330\, a^3\, b\, B-3560\, a\, b^3\, B+15\, a^4\, C-3236\, a^2\, b^2\, C-1024\, b^4\, C\right)$$

$$\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\, a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-6440\,a^2\,b^2\,B-1440\,b^4\,B-2292\,a^3\,b\,C-4624\,a\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\right.\right.$$

$$\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\Big[$$

$$\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-150\,a^3\,b\,B-2840\,a\,b^3\,B+45\,a^4\,C-1692\,a^2\,b^2\,C-1024\,b^4\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Bigg/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{\left(590a^2b\,B+420b^3B+15a^3C+898ab^2C\right)\mathrm{Sin}[c+dx]}{960b}+\right.$$

$$\frac{1}{480}\left(170ab\,B+93a^2C+88b^2C\right)\mathrm{Sin}[2(c+dx)]+\frac{1}{160}b\,(10b\,B+21a\,C)\,\mathrm{Sin}[3(c+dx)]+\frac{1}{40}b^2C\,\mathrm{Sin}[4(c+dx)]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\sqrt{\mathrm{Cos}[c+dx]}},x,9,0\right\}$$

$$\frac{1}{192\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{96\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(192\,a^3\,B-104\,a^2\,b\,B+304\,a\,b^2\,B-59\,a^3\,C+322\,a^2\,b\,C-36\,a\,b^2\,C+72\,b^3\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{1}{32\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(40\,a^3\,b\,B+160\,a\,b^3\,B-5\,a^4\,C+120\,a^2\,b^2\,C+48\,b^4\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(24\,a\,b\,B+5\,a^2\,C+12\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{32\,d}+$$

$$\frac{(8\,b\,B+5\,a\,C)\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{24\,d}+\frac{C\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{4\,d}+$$

$$\frac{\left(264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d}$$

$$\frac{1}{384\,d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}4\,a\left(472\,a^2\,b\,B+128\,b^3\,B+133\,a^3\,C+356\,a\,b^2\,C\right)$$

$$\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(384\,a^3\,B+608\,a\,b^2\,B+644\,a^2\,b\,C+144\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\,\left(264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{1}{96}\left(104ab\,B+59a^2C+42b^2C\right)\mathrm{Sin}[c+dx]+\frac{1}{48}b\,(8b\,B+17a\,C)\,\mathrm{Sin}[2(c+dx)]+\frac{1}{16}b^2C\,\mathrm{Sin}[3(c+dx)]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{3/2}},x,9,0\right\}$$

$$\frac{(a+b)\left(54\,a\,b\,B+33\,a^2\,C+16\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{24\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(24\,a^3\,B-72\,a^2\,b\,B+6\,a\,b^2\,B-12\,b^3\,B-24\,a^3\,C+13\,a^2\,b\,C-38\,a\,b^2\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(30\,a^2\,b\,B+8\,b^3\,B+5\,a^3\,C+20\,a\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{b\,(2\,b\,B+3\,a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d}+\frac{b\,C\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{\left(54\,a\,b\,B+33\,a^2\,C+16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d}$$

$$\frac{1}{48\,d}\left(-\left(4\,a\,\left(48\,a^3\,B+66\,a\,b^2\,B+59\,a^2\,b\,C+16\,b^3\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\,\left(144\,a^2\,b\,B+24\,b^3\,B+48\,a^3\,C+76\,a\,b^2\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(54\,a\,b^2\,B+33\,a^2\,b\,C+16\,b^3\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\sqrt{\text{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{1}{12}b\,(6 b B+13 a C)\,\text{Sin}[c+d x]+\frac{1}{6}b^2 C\,\text{Sin}[2(c+d x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{5/2}\left(B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{5/2}},x,9,0\right\}$$

$$-\frac{(a+b)\left(8 a^2 B-4 b^2 B-9 a b C\right)\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{1}{2 d\sqrt{a+b\,\text{Cos}[c+d x]}}\left(4 a^3 B+12 a^2 b B-12 a b^2 B+4 a^3 C-12 a^2 b C+a b^2 C-2 b^3 C\right)$$

$$\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{b\left(20 a b B+15 a^2 C+4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{b\,(4 a B-b C)\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 d}+\frac{2 a B\,(a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{d\sqrt{\text{Cos}[c+d x]}}-$$

$$\frac{\left(8 a^2 B-4 b^2 B-9 a b C\right)\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 d}$$

$$\frac{1}{8\,d}\left(\left(4\,a\left(-16\,a^2\,b\,B-4\,b^3\,B-8\,a^3\,C-11\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$4\,a\left(8\,a^3\,B-24\,a\,b^2\,B-24\,a^2\,b\,C-4\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(8\,a^2\,b\,B-4\,b^3\,B-9\,a\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{1}{2}\,b^2\,C\,\mathrm{Sin}[c+d\,x]+2\,a^2\,B\,\mathrm{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{7/2}},\;x,\;9,\;0\right\}$$

$$-\frac{(a+b)\,\left(14\,a\,b\,B+6\,a^2\,C-3\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,\left(a^3\,B+7\,a^2\,b\,B+9\,a\,b^2\,B-3\,b^3\,B+3\,a^3\,C+9\,a^2\,b\,C-9\,a\,b^2\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,b^2\,(2\,b\,B+5\,a\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(2\,b\,B+a\,C)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+\frac{2\,a\,B\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{\left(14\,a\,b\,B+6\,a^2\,C-3\,b^2\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}$$

$$\frac{1}{6\,d}\left(-\left(4\,a\left(2\,a^3\,B+4\,a\,b^2\,B+12\,a^2\,b\,C+3\,b^3\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(-14\,a^2\,b\,B+6\,b^3\,B-6\,a^3\,C+18\,a\,b^2\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-14\,a\,b^2\,B-6\,a^2\,b\,C+3\,b^3\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{2}{3}\,\mathrm{Sec}[c+d\,x]\,\left(7\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+3\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{3}\,a^2\,B\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{9/2}},\;x,\;9,\;0\right\}$$

$$-\frac{2\,(a+b)\,\left(9\,a^2\,B+23\,b^2\,B+35\,a\,b\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,\left(9\,a^3\,B+17\,a^2\,b\,B+23\,a\,b^2\,B+15\,b^3\,B+5\,a^3\,C+35\,a^2\,b\,C+45\,a\,b^2\,C-15\,b^3\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]+$$

$$\frac{4\,b^3\,C\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,a\,(8\,b\,B+5\,a\,C)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{15\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,a\,B\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{5\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(9\,a^2\,B+23\,b^2\,B+35\,a\,b\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{15\,d}\left(\left(4\,a\left(-8\,a^2\,b\,B+8\,b^3\,B-5\,a^3\,C-10\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$4\,a\left(9\,a^3\,B+23\,a\,b^2\,B+35\,a^2\,b\,C-15\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(9\,a^2\,b\,B+23\,b^3\,B+35\,a\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{2}{15}\mathrm{Sec}[c+dx]^2\big(11\,a\,b\,B\,\mathrm{Sin}[c+dx]+5\,a^2\,C\,\mathrm{Sin}[c+dx]\big)+\frac{2}{15}\mathrm{Sec}[c+dx]\big(9\,a^2\,B\,\mathrm{Sin}[c+dx]+23\,b^2\,B\,\mathrm{Sin}[c+dx]+35\,a\,b\,C\,\mathrm{Sin}[c+dx]\big)+\frac{2}{5}a^2\,B\,\mathrm{Sec}[c+dx]^2\,\mathrm{Tan}[c+dx]\Big)$$

Incorrect antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\big(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{13/2}},\ x,\ 9,\ 0\Big\}$$

$$-\frac{1}{315\,a^2\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}2\,(a+b)\,\big(147\,a^4\,B+279\,a^2\,b^2\,B-10\,b^4\,B+435\,a^3\,b\,C+45\,a\,b^3\,C\big)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+\frac{1}{315\,a\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}2\,\big(147\,a^4\,B+261\,a^3\,b\,B+279\,a^2\,b^2\,B+155\,a\,b^3\,B-10\,b^4\,B+75\,a^4\,C+435\,a^3\,b\,C+405\,a^2\,b^2\,C+45\,a\,b^3\,C\big)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+\frac{2\,a\,(4\,b\,B+3\,a\,C)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{21\,d\,\mathrm{Cos}[c+dx]^{7/2}}+\frac{2\,\big(49\,a^2\,B+75\,b^2\,B+135\,a\,b\,C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{315\,d\,\mathrm{Cos}[c+dx]^{5/2}}+\frac{2\,\big(163\,a^2\,b\,B+5\,b^3\,B+75\,a^3\,C+135\,a\,b^2\,C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{315\,a\,d\,\mathrm{Cos}[c+dx]^{3/2}}+\frac{2\,a\,B\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}[c+dx]}{9\,d\,\mathrm{Cos}[c+dx]^{9/2}}+\frac{2\,\big(147\,a^4\,B+279\,a^2\,b^2\,B-10\,b^4\,B+435\,a^3\,b\,C+45\,a\,b^3\,C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\big[\frac{1}{2}(c+dx)\big]}{315\,a^2\,d\sqrt{\mathrm{Cos}[c+dx]}}$$

$$-\frac{1}{315\,a^2\,d\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)}$$

$$2\sqrt{\frac{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(147\,a^4\,B+279\,a^2\,b^2\,B-10\,b^4\,B+435\,a^3\,b\,C+45\,a\,b^3\,C\right)\right.$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(147\,a^4\,B+279\,a^2\,b^2\,B-10\,b^4\,B+435\,a^3\,b\,C+45\,a\,b^3\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(-10\,b^3\,B+15\,a\,b^2\,(11\,B+3\,C)+3\,a^3\,(49\,B+25\,C)+6\,a^2\,b\,(19\,B+60\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{2}{63}\mathrm{Sec}[c+d\,x]^4\left(19\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+9\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)+\right.$$

$$\frac{2}{315}\mathrm{Sec}[c+d\,x]^3\left(49\,a^2\,B\,\mathrm{Sin}[c+d\,x]+75\,b^2\,B\,\mathrm{Sin}[c+d\,x]+135\,a\,b\,C\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{2\,\mathrm{Sec}[c+d\,x]^2\left(163\,a^2\,b\,B\,\mathrm{Sin}[c+d\,x]+5\,b^3\,B\,\mathrm{Sin}[c+d\,x]+75\,a^3\,C\,\mathrm{Sin}[c+d\,x]+135\,a\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{1}{315\,a^2}2\,\mathrm{Sec}[c+d\,x]\left(147\,a^4\,B\,\mathrm{Sin}[c+d\,x]+279\,a^2\,b^2\,B\,\mathrm{Sin}[c+d\,x]-10\,b^4\,B\,\mathrm{Sin}[c+d\,x]+\right.$$

$$\left.\left.435\,a^3\,b\,C\,\mathrm{Sin}[c+d\,x]+45\,a\,b^3\,C\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{9}a^2\,B\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{15/2}},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{3465\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(3705\,a^4\,b\,B+255\,a^2\,b^3\,B+40\,b^5\,B+1617\,a^5\,C+3069\,a^3\,b^2\,C-110\,a\,b^4\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+\frac{1}{3465\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(675\,a^5\,B+3705\,a^4\,b\,B+3315\,a^3\,b^2\,B+255\,a^2\,b^3\,B+10\,a\,b^4\,B+40\,b^5\,B+1617\,a^5\,C+2871\,a^4\,b\,C+3069\,a^3\,b^2\,C+1705\,a^2\,b^3\,C-\right.$$

$$\left.110\,a\,b^4\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,a\,(14\,b\,B+11\,a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{99\,d\,\text{Cos}[c+d\,x]^{9/2}}+\frac{2\,\left(81\,a^2\,B+113\,b^2\,B+209\,a\,b\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{693\,d\,\text{Cos}[c+d\,x]^{7/2}}+$$

$$\frac{2\,\left(1145\,a^2\,b\,B+15\,b^3\,B+539\,a^3\,C+825\,a\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3465\,a\,d\,\text{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\left(675\,a^4\,B+1025\,a^2\,b^2\,B-20\,b^4\,B+1793\,a^3\,b\,C+55\,a\,b^3\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{3465\,a^2\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,a\,B\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{11\,d\,\text{Cos}[c+d\,x]^{11/2}}+$$

$$\frac{2\,\left(3705\,a^4\,b\,B+255\,a^2\,b^3\,B+40\,b^5\,B+1617\,a^5\,C+3069\,a^3\,b^2\,C-110\,a\,b^4\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3465\,a^3\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3465\,a^3\,d}\left(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right.$$

$$4\,a\,\left(675\,a^6\,B-390\,a^4\,b^2\,B-245\,a^2\,b^4\,B-40\,b^6\,B+1254\,a^5\,b\,C-1364\,a^3\,b^3\,C+110\,a\,b^5\,C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\;\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-3705\,a^5\,b\,B-255\,a^3\,b^3\,B-40\,a\,b^5\,B-1617\,a^6\,C-3069\,a^4\,b^2\,C+110\,a^2\,b^4\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\left(-3705\,a^4\,b^2\,B-255\,a^2\,b^4\,B-40\,b^6\,B-1617\,a^5\,b\,C-3069\,a^3\,b^3\,C+110\,a\,b^5\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big)\Big/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big)\Big/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2}{99}\mathrm{Sec}[c+dx]^5\left(23ab\,B\,\mathrm{Sin}[c+dx]+11a^2C\,\mathrm{Sin}[c+dx]\right)+\right.$$

$$\frac{2}{693}\mathrm{Sec}[c+dx]^4\left(81a^2B\,\mathrm{Sin}[c+dx]+113b^2B\,\mathrm{Sin}[c+dx]+209ab\,C\,\mathrm{Sin}[c+dx]\right)+$$

$$\frac{2\,\mathrm{Sec}[c+dx]^3\left(1145a^2b\,B\,\mathrm{Sin}[c+dx]+15b^3B\,\mathrm{Sin}[c+dx]+539a^3C\,\mathrm{Sin}[c+dx]+825ab^2C\,\mathrm{Sin}[c+dx]\right)}{3465a}+$$

$$\frac{1}{3465a^2}2\,\mathrm{Sec}[c+dx]^2$$

$$\left(675a^4B\,\mathrm{Sin}[c+dx]+1025a^2b^2B\,\mathrm{Sin}[c+dx]-20b^4B\,\mathrm{Sin}[c+dx]+1793a^3b\,C\,\mathrm{Sin}[c+dx]+55ab^3C\,\mathrm{Sin}[c+dx]\right)+$$

$$\frac{1}{3465a^3}2\,\mathrm{Sec}[c+dx]\left(3705a^4b\,B\,\mathrm{Sin}[c+dx]+255a^2b^3B\,\mathrm{Sin}[c+dx]+40b^5B\,\mathrm{Sin}[c+dx]+\right.$$

$$\left.\left.1617a^5C\,\mathrm{Sin}[c+dx]+3069a^3b^2C\,\mathrm{Sin}[c+dx]-110ab^4C\,\mathrm{Sin}[c+dx]\right)+\frac{2}{11}a^2B\,\mathrm{Sec}[c+dx]^5\,\mathrm{Tan}[c+dx]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{3/2}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x,8,0\right\}$$

$$-\frac{(a+b)\left(18ab\,B-15a^2C-16b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{24b^3d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{\left(6ab\,B-12b^2B-5a^2C-2ab\,C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{12b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{\left(6a^2b\,B+8b^3B-5a^3C-4ab^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{4b^3d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{(6b\,B-5a\,C)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{12b^2d}+\frac{C\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3bd}-$$

$$\frac{\left(18ab\,B-15a^2C-16b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{24b^3d}$$

$$\frac{1}{48b^2d}\left(-\left(4a\left(-6ab\,B+5a^2C+16b^2C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$4a\left(24b^2B+4ab\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-18\,a\,b\,B+15\,a^2\,C+16\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\sqrt{\text{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{(6 b B-5 a C)\,\text{Sin}[c+d x]}{12 b^2}+\frac{C\,\text{Sin}[2(c+d x)]}{6 b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\left(B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{\sqrt{a+b\,\text{Cos}[c+d x]}},x,7,0\right\}$$

$$\frac{(a+b)(4 b B-3 a C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4 b^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{(a-2 b) C\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 b d\sqrt{a+b\,\text{Cos}[c+d x]}}-$$

$$\frac{\left(4 a b B-3 a^2 C-4 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 b^2 d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{C\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{2 b d}+\frac{(4 b B-3 a C)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b^2 d}$$

$$\frac{C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,d}+$$

$$\frac{1}{8\,b\,d}\left(-\left(4\,a\,(4\,b\,B-a\,C)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$16\,a\,b\,C\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2(4bB-3aC)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\Big\{\frac{\mathrm{Cos}[c+dx]^{3/2}\,\big(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\big)}{(a+b\,\mathrm{Cos}[c+dx])^{3/2}},\ x,\ 8,\ 0\Big\}$$

$$\frac{\left(12 a^2 b B-4 b^3 B-15 a^3 C+7 a b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4(a-b) b^3 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(4 a b B-5 a^2 C+3 a b C-2 b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2(a-b) b^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(12 a b B-15 a^2 C-4 b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2 b^3 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 a(b B-a C) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{b\left(a^2-b^2\right) d \sqrt{a+b \text{Cos}[c+d x]}}-\frac{\left(4 a b B-5 a^2 C+b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{2 b^2\left(a^2-b^2\right) d}+$$

$$\frac{\left(12 a^2 b B-4 b^3 B-15 a^3 C+7 a b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b^3\left(a^2-b^2\right) d}$$

$$\frac{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\left(\frac{C \text{Sin}[c+d x]}{2 b^2}+\frac{2\left(-a^2 b B \text{Sin}[c+d x]+a^3 C \text{Sin}[c+d x]\right)}{b^2\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}\right)}{d}-\frac{1}{8(a-b) b^2(a+b) d}$$

$$\left(-\left(4 a\left(-4 a^2 b B+4 b^3 B+5 a^3 C-5 a b^2 C\right) \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \text{Csc}[c+d x] \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\right)-$$

$$4\,a\left(-8\,a\,b^2\,B+4\,a^2\,b\,C+4\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-12\,a^2\,b\,B+4\,b^3\,B+15\,a^3\,C-7\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+dx]}\left(B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{(a+b\,\mathrm{Cos}[c+dx])^{3/2}},x,7,0\right\}$$

$$-\frac{\left(2ab\,B-3a^2C+b^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{(a-b)\,b^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2(bB-aC)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{(a-b)\,bd\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2(2bB-3aC)\sqrt{1+\mathrm{Cos}[c+dx]}\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticPi}\left[-1,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{b^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2a(bB-aC)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\left(a^2-b^2\right)d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}-\frac{\left(2ab\,B-3a^2C+b^2C\right)\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{b^2\left(a^2-b^2\right)d}$$

$$-\frac{2\sqrt{\text{Cos}[c+d\,x]}\,\left(-a\,b\,B\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,(a-b)\,b\,(a+b)\,d}\left(-\left(4\,a\,\left(a^2\,C-b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,\left(-2\,b^2\,B+2\,a\,b\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\;(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;6,\;0\right\}$$

$$\frac{2\,(b\,B-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(B-C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{2\,\sqrt{\text{Cos}[c+d\,x]}\,(-b\,B\,\text{Sin}[c+d\,x]+a\,C\,\text{Sin}[c+d\,x])}{\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{1}{(-a+b)\,(a+b)\,d}\left(-4\,a\,(a\,B-b\,C)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(b\,B-a\,C)\left(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,(b\,B-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(B-C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(b\,B-a\,C)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,(b\,B-a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{\left(a^3-a\,b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\sqrt{\text{Cos}[c+d\,x]}\,\Bigg(b\,(b\,B-a\,C)\,\text{Sin}[c+d\,x]+$$

$$\Bigg(2\,\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\Bigg((a+b)\,\Bigg((-b\,B+a\,C)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+a\,(B-C)\,\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\Big]\Bigg)\,\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$(b\,B-a\,C)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\Bigg)\Bigg)\Bigg/$$

$$\left(\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,(1+\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,6,\,0\right\}$$

$$-\frac{2\,\left(a^2\,B-2\,b^2\,B+a\,b\,C\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a^2\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,B-2\,b\,B+a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(b\,B-a\,C)\,\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,d\,\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,(b\,B-a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\text{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,\left(a^2\,B-2\,b^2\,B+a\,b\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a^2\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{a^2(-a+b)(a+b)d}\left(-\left(4a\left(2a^2bB-2b^3B-a^3C+ab^2C\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\right.$$

$$\left.\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-4a\left(a^3B-2ab^2B+a^2bC\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(a^2 b B-2 b^3 B+a b^2 C\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\left(\frac{2\left(-b^3 B\,\mathrm{Sin}[c+dx]+a b^2 C\,\mathrm{Sin}[c+dx]\right)}{a^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])}+\frac{2B\,\mathrm{Tan}[c+dx]}{a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2}{\mathrm{Cos}[c+dx]^{7/2}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}},x,7,0\right\}$$

$$\frac{2\left(5a^2bB-8b^3B-3a^3C+6ab^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^3(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^2B-6abB+8b^2B+3a^2C-6abC\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{2(bB-aC)\,\text{Sin}[c+dx]}{\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{5/2}\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2(bB-aC)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{5/2}}+$$

$$\frac{2\left(a^2B-4b^2B+3abC\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{2\left(5a^2bB-8b^3B-3a^3C+6ab^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{3a^3(a-b)(a+b)\,d}$$

$$\Bigg(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(a^4B+7a^2b^2B-8b^4B-6a^3bC+6ab^3C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(5a^3bB-8ab^3B-3a^4C+6a^2b^2C\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(5\,a^2\,b^2\,B-8\,b^4\,B-3\,a^3\,b\,C+6\,a\,b^3\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{2\,\text{Sec}[c+d\,x]\,(-5\,b\,B\,\text{Sin}[c+d\,x]+3\,a\,C\,\text{Sin}[c+d\,x])}{3\,a^3}-\frac{2\left(-b^4\,B\,\text{Sin}[c+d\,x]+a\,b^3\,C\,\text{Sin}[c+d\,x]\right)}{a^3\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])}+\frac{2\,B\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{3\,a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 8,\ 0\right\}$$

$$-\left(\left(6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^3 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(2\left(2 a^2 b B-3 a b^2 B-3 b^3 B-5 a^3 C+3 a^2 b C+6 a b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{2(2 b B-5 a C) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{b^3 d \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{2 a (b B-a C) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^{3/2}}+$$

$$\frac{2 a\left(2 a^2 b B-6 b^3 B-5 a^3 C+9 a b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d}$$

$$\frac{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\left(\frac{2\left(-a^2 b B \text{Sin}[c+d x]+a^3 C \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}-\frac{2\left(-3 a^3 b B \text{Sin}[c+d x]+7 a b^3 B \text{Sin}[c+d x]+6 a^4 C \text{Sin}[c+d x]-10 a^2 b^2 C \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)}{d}+$$

$$\frac{1}{6(a-b)^2 b^2 (a+b)^2 d}$$

$$\left(-\frac{1}{(a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}} 4 a\left(-2 a^3 b B+2 a b^3 B+5 a^4 C-8 a^2 b^2 C+3 b^4 C\right) \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b) \text{Cos}[c+d x] \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \text{Csc}[c+d x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4 -$$

$$4\,a\,\left(2\,a^2\,b^2\,B+6\,b^4\,B+4\,a^3\,b\,C-12\,a\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\right)+2\,\left(-6\,a^3\,b\,B+14\,a\,b^3\,B+15\,a^4\,C-26\,a^2\,b^2\,C+3\,b^4\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left(b\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\left(B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\left(4b^3B+3a^3C-7ab^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3(a-b)^2b^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(abB+3b^2B+2a^2C-3abC-3b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3(a-b)^2b(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{4C\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2a(bB-aC)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}-\frac{2\left(4b^3B+3a^3C-7ab^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3(a-b)\,b^2(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}$$

$$\frac{\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\left(-\frac{2\left(-abB\,\text{Sin}[c+dx]+a^2C\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\frac{2\left(4b^3B\,\text{Sin}[c+dx]+3a^3C\,\text{Sin}[c+dx]-7ab^2C\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)}{d}-$$

$$\frac{1}{3(a-b)^2b(a+b)^2d}\left(-\left(4a\left(-a^2bB+b^3B+a^3C-ab^2C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\right)-4a\left(4ab^2B-a^2bC-3b^3C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2\left(4b^3B+3a^3C-7ab^2C\right)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,6,\,0\right\}$$

$$-\frac{2\left(6\,a^2\,b\,B-2\,b^3\,B-3\,a^3\,C-a\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(3\,a^2\,B+3\,a\,b\,B-2\,b^2\,B-3\,a^2\,C-a\,b\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(b\,B-a\,C)\,\text{Sin}[c+d\,x]}{3\left(a^2-b^2\right)d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}-\frac{2\left(5\,a^2\,b\,B-b^3\,B-2\,a^3\,C-2\,a\,b^2\,C\right)\text{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)^2 d\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(6\,a^2\,b\,B-2\,b^3\,B-3\,a^3\,C-a\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\left(a^2-b^2\right)^2 d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(-\frac{2\left(-b^2\,B\,\text{Sin}[c+d\,x]+a\,b\,C\,\text{Sin}[c+d\,x]\right)}{3\,a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}-\frac{2\left(-6\,a^2\,b^2\,B\,\text{Sin}[c+d\,x]+2\,b^4\,B\,\text{Sin}[c+d\,x]+3\,a^3\,b\,C\,\text{Sin}[c+d\,x]+a\,b^3\,C\,\text{Sin}[c+d\,x]\right)}{3\,a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}\right)}{d}+$$

$$\frac{1}{3\,a^2\,(a-b)^2\,(a+b)^2\,d}$$

$$\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(3\,a^4\,B-5\,a^2\,b^2\,B+2\,b^4\,B-a^3\,b\,C+a\,b^3\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\right.$$

$$\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-6\,a^3\,b\,B+2\,a\,b^3\,B+3\,a^4\,C+a^2\,b^2\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+2\left(-6a^2b^2B+2b^4B+3a^3bC+ab^3C\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{5/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$-\left(2\left(3\,a^4\,B-15\,a^2\,b^2\,B+8\,b^4\,B+6\,a^3\,b\,C-2\,a\,b^3\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\right)\Big/\left(3\,a^3\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)+$$

$$\left(2\left(3\,a^3\,B-9\,a^2\,b\,B-6\,a\,b^2\,B+8\,b^3\,B+3\,a^3\,C+3\,a^2\,b\,C-2\,a\,b^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\left.\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\right)\Big/\left(3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\frac{2\,(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{3\,\left(a^2-b^2\right)\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}-\frac{2\left(7\,a^2\,b\,B-3\,b^3\,B-4\,a^3\,C\right)\mathrm{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(8\,a^2\,b\,B-4\,b^3\,B-5\,a^3\,C+a\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\left(3\,a^4\,B-15\,a^2\,b^2\,B+8\,b^4\,B+6\,a^3\,b\,C-2\,a\,b^3\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^3\,\left(a^2-b^2\right)^2\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{3\,a^3\,(a-b)^2\,(a+b)^2\,d}\left(-\frac{1}{(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}4\,a\left(9\,a^4\,b\,B-17\,a^2\,b^3\,B+8\,b^5\,B-3\,a^5\,C+5\,a^3\,b^2\,C-2\,a\,b^4\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(3\,a^5\,B-15\,a^3\,b^2\,B+8\,a\,b^4\,B+6\,a^4\,b\,C-2\,a^2\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(3\,a^4\,b\,B-15\,a^2\,b^3\,B+8\,b^5\,B+6\,a^3\,b^2\,C-2\,a\,b^4\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2\left(-b^3B\,\mathrm{Sin}[c+dx]+ab^2C\,\mathrm{Sin}[c+dx]\right)}{3a^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}+\right.$$

$$\frac{2\left(-9a^2b^3B\,\mathrm{Sin}[c+dx]+5b^5B\,\mathrm{Sin}[c+dx]+6a^3b^2C\,\mathrm{Sin}[c+dx]-2ab^4C\,\mathrm{Sin}[c+dx]\right)}{3a^3\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])}+$$

$$\left.\frac{2B\,\mathrm{Tan}[c+dx]}{a^3}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+dx])\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^2,\ x,\ 4,\ 0\right\}$$

$$(bB+aC)\,x+\frac{(Ab+aB)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+dx]]}{d}-\frac{b(A-C)\,\mathrm{Sin}[c+dx]}{d}+\frac{A(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Tan}[c+dx]}{d}$$

$$\frac{1}{d}\left(bBdx+aCdx-Ab\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]-\right.$$

$$aB\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+Ab\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+$$

$$\left.aB\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]\right]+bC\,\mathrm{Cos}[dx]\,\mathrm{Sin}[c]+bC\,\mathrm{Cos}[c]\,\mathrm{Sin}[dx]+aA\,\mathrm{Tan}[c+dx]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 6,\ 0\right\}$$

$$\frac{(3\,a\,A+4\,b\,B+4\,a\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{(2\,A\,b+2\,a\,B+3\,b\,C)\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{(3\,a\,A+4\,b\,B+4\,a\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+$$

$$\frac{(A\,b+4\,a\,B)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{12\,d}+\frac{A\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{4\,d}$$

$$-\frac{3\,a\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}-\frac{b\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}-$$

$$\frac{a\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+\frac{3\,a\,A\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{8\,d}+$$

$$\frac{b\,B\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+\frac{a\,C\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right]}{2\,d}+$$

$$\frac{a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}+\frac{3\,a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+$$

$$\frac{b\,B}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{a\,C}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]-\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-$$

$$\frac{a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^4}-\frac{3\,a\,A}{16\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-$$

$$\frac{b\,B}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{a\,C}{4\,d\left(\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]+\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{2\,A\,b\,\mathrm{Tan}[c+d\,x]}{3\,d}+$$

$$\frac{2\,a\,B\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{b\,C\,\mathrm{Tan}[c+d\,x]}{d}+\frac{A\,b\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}+\frac{a\,B\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{3\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^6,\ x,\ 7,\ 0\right\}$$

$$\frac{(3\,A\,b+3\,a\,B+4\,b\,C)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{8\,d}+\frac{2\,(4\,a\,A+5\,b\,B+5\,a\,C)\,\mathrm{Tan}[c+d\,x]}{15\,d}+$$

$$\frac{(3\,A\,b+3\,a\,B+4\,b\,C)\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{8\,d}+\frac{(4\,a\,A+5\,b\,B+5\,a\,C)\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]}{15\,d}+$$

$$\frac{(A\,b+5\,a\,B)\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]}{20\,d}+\frac{A\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]}{5\,d}$$

$$-\frac{3\,A\,b\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}-\frac{3\,a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}-$$
$$\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+\frac{3\,A\,b\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}+$$
$$\frac{3\,a\,B\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{8\,d}+\frac{b\,C\,\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]}{2\,d}+$$
$$\frac{A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+\frac{a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}+$$
$$\frac{3\,A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{3\,a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}-$$
$$\frac{a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^4}-\frac{3\,A\,b}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-$$
$$\frac{3\,a\,B}{16\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{b\,C}{4\,d\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$
$$\frac{8\,a\,A\,\text{Tan}[c+d\,x]}{15\,d}+\frac{2\,b\,B\,\text{Tan}[c+d\,x]}{3\,d}+\frac{2\,a\,C\,\text{Tan}[c+d\,x]}{3\,d}+\frac{4\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{15\,d}+$$
$$\frac{b\,B\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,C\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{3\,d}+\frac{a\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3,\ x,\ 5,\ 0\right\}$$

$$\left(b^2\,B+2\,a\,b\,C\right)x+\frac{\left(a^2\,A+2\,A\,b^2+4\,a\,b\,B+2\,a^2\,C\right)\text{ArcTanh}[\text{Sin}[c+d\,x]]}{2\,d}-\frac{b\,(3\,A\,b+2\,a\,B-2\,b\,C)\,\text{Sin}[c+d\,x]}{2\,d}+$$
$$\frac{(A\,b+a\,B)\,(a+b\,\text{Cos}[c+d\,x])\,\text{Tan}[c+d\,x]}{d}+\frac{A\,(a+b\,\text{Cos}[c+d\,x])^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{2\,d}$$
$$\frac{1}{4\,d}\left(4\,b\,(b\,B+2\,a\,C)\,(c+d\,x)-2\left(2\,A\,b^2+4\,a\,b\,B+a^2\,(A+2\,C)\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+\right.$$
$$2\left(2\,A\,b^2+4\,a\,b\,B+a^2\,(A+2\,C)\right)\text{Log}\left[\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+$$
$$\frac{a^2\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,a\,(2\,A\,b+a\,B)\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}-$$
$$\left.\frac{a^2\,A}{\left(\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{4\,a\,(2\,A\,b+a\,B)\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}+4\,b^2\,C\,\text{Sin}[c+d\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^2\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^4,\ x,\ 5,\ 0\right\}$$

$$b^2 C x + \frac{\left(2 a A b + a^2 B + 2 b^2 B + 4 a b C\right) \text{ArcTanh}[\text{Sin}[c + d x]]}{2 d} + \frac{\left(4 a^2 A + 2 A b^2 + 9 a b B + 6 a^2 C\right) \text{Tan}[c + d x]}{6 d} + \frac{(2 A b + 3 a B) (b + a \text{Sec}[c + d x]) \text{Tan}[c + d x]}{6 d} + \frac{A (b + a \text{Sec}[c + d x])^2 \text{Tan}[c + d x]}{3 d}$$

$$\frac{1}{12 d} \left(12 b^2 C (c + d x) - 6 \left(a^2 B + 2 b^2 B + 2 a b (A + 2 C)\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + 6 \left(a^2 B + 2 b^2 B + 2 a b (A + 2 C)\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right] + \frac{a (6 A b + a (A + 3 B))}{\left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{2 a^2 A \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{\left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} + \frac{4 \left(3 A b^2 + 6 a b B + a^2 (2 A + 3 C)\right) \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]} + \frac{2 a^2 A \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{\left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^3} - \frac{a (6 A b + a (A + 3 B))}{\left(\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right)^2} + \frac{4 \left(3 A b^2 + 6 a b B + a^2 (2 A + 3 C)\right) \text{Sin}\left[\frac{1}{2} (c + d x)\right]}{\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]}{a + b \text{Cos}[c + d x]}, x, 4, 0\right\}$$

$$\frac{C x}{b} - \frac{2 \left(A b^2 - a b B + a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a b \sqrt{a^2 - b^2}\, d} + \frac{A \text{ArcTanh}[\text{Sin}[c + d x]]}{a d}$$

$$\left(2 \text{Cos}[c + d x] (B + C \text{Cos}[c + d x] + A \text{Sec}[c + d x]) \left(\frac{C x}{b} - \frac{A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] - \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{a d} + \frac{A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c + d x)\right] + \text{Sin}\left[\frac{1}{2} (c + d x)\right]\right]}{a d} + \frac{2 \left(A b^2 + a (-b B + a C)\right) \text{ArcTanh}\left[\frac{\text{Sec}\left[\frac{d x}{2}\right] (\text{Cos}[c] - i \text{Sin}[c]) \left(a \text{Sin}\left[\frac{d x}{2}\right] - b \text{Sin}\left[c + \frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right) (\text{Cos}[c] - i \text{Sin}[c])^2}}\right] (\text{Cos}[c] - i \text{Sin}[c])}{a b d \sqrt{\left(-a^2 + b^2\right) (\text{Cos}[c] - i \text{Sin}[c])^2}}\right)\right) \Big/ \left(2 A + C + 2 B \text{Cos}[c + d x] + C \text{Cos}[2 (c + d x)]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A + B \text{Cos}[c + d x] + C \text{Cos}[c + d x]^2\right) \text{Sec}[c + d x]^2}{a + b \text{Cos}[c + d x]}, x, 4, 0\right\}$$

$$\frac{2 \left(A b^2 - a b B + a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^2 \sqrt{a^2 - b^2}\, d} - \frac{(A b - a B) \text{ArcTanh}[\text{Sin}[c + d x]]}{a^2 d} + \frac{A \text{Tan}[c + d x]}{a d}$$

$$\frac{1}{a^2 d\,(2A+C+2B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[2\,(c+dx)])}\,2\,\mathrm{Cos}[c+dx]^2\left(C+B\,\mathrm{Sec}[c+dx]+A\,\mathrm{Sec}[c+dx]^2\right)$$

$$\left((A\,b-a\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]+(-A\,b+a\,B)\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]-\right.$$

$$\frac{2\left(A\,b^2+a\,(-b\,B+a\,C)\right)\mathrm{ArcTanh}\left[\frac{\mathrm{Sec}\left[\frac{dx}{2}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])\left(a\,\mathrm{Sin}\left[\frac{dx}{2}\right]-b\,\mathrm{Sin}\left[c+\frac{dx}{2}\right]\right)}{\sqrt{-(a^2-b^2)\,(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}\right](\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])}{\sqrt{(-a^2+b^2)\,(\mathrm{Cos}[c]-i\,\mathrm{Sin}[c])^2}}+$$

$$\left.\frac{a\,A\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right)}+\frac{a\,A\,\mathrm{Sin}\left[\frac{dx}{2}\right]}{\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^3}{a+b\,\mathrm{Cos}[c+dx]},\,x,\,5,\,0\right\}$$

$$-\frac{2\,b\left(A\,b^2-a\,b\,B+a^2\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+dx)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\sqrt{a^2-b^2}\,d}+$$

$$\frac{\left(a^2\,A+2\,A\,b^2-2\,a\,b\,B+2\,a^2\,C\right)\mathrm{ArcTanh}[\mathrm{Sin}[c+dx]]}{2\,a^3\,d}-\frac{(A\,b-a\,B)\,\mathrm{Tan}[c+dx]}{a^2\,d}+\frac{A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{2\,a\,d}$$

$$\frac{1}{4\,a^3\,d}$$

$$\left(\frac{8\,b\left(A\,b^2+a\,(-b\,B+a\,C)\right)\mathrm{ArcTanh}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}-2\left(2\,A\,b^2-2\,a\,b\,B+a^2\,(A+2\,C)\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]+\right.$$

$$2\left(2\,A\,b^2-2\,a\,b\,B+a^2\,(A+2\,C)\right)\mathrm{Log}\left[\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right]+\frac{a^2\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right)^2}+$$

$$\left.\frac{4\,a\,(-A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]-\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]}-\frac{a^2\,A}{\left(\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]\right)^2}+\frac{4\,a\,(-A\,b+a\,B)\,\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]}{\mathrm{Cos}\left[\frac{1}{2}\,(c+dx)\right]+\mathrm{Sin}\left[\frac{1}{2}\,(c+dx)\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^4}{a+b\,\mathrm{Cos}[c+dx]},\,x,\,6,\,0\right\}$$

$$\frac{2 b^2 \left(A b^2-a b B+a^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4 \sqrt{a^2-b^2}\, d}-\frac{\left(a^2 A b+2 A b^3-a^3 B-2 a b^2 B+2 a^2 b C\right) \text{ArcTanh}[\text{Sin}[c+d x]]}{2 a^4 d}+$$

$$\frac{\left(2 a^2 A+3 A b^2-3 a b B+3 a^2 C\right) \text{Tan}[c+d x]}{3 a^3 d}-\frac{(A b-a B) \text{Sec}[c+d x] \text{Tan}[c+d x]}{2 a^2 d}+\frac{A \text{Sec}[c+d x]^2 \text{Tan}[c+d x]}{3 a d}$$

$$\frac{1}{12 a^4 d}\left(-\frac{24 b^2 \left(A b^2+a (-b B+a C)\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\sqrt{-a^2+b^2}}+\right.$$

$$6 \left(2 A b^3-a^3 B-2 a b^2 B+a^2 b (A+2 C)\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+$$

$$6 \left(-2 A b^3+a^3 B+2 a b^2 B-a^2 b (A+2 C)\right) \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+$$

$$\frac{a^2 (-3 A b+a (A+3 B))}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+\frac{2 a^3 A \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}+$$

$$\frac{4 a \left(3 A b^2-3 a b B+a^2 (2 A+3 C)\right) \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]}+\frac{2 a^3 A \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^3}-$$

$$\left.\frac{a^2 (-3 A b+a (A+3 B))}{\left(\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right)^2}+\frac{4 a \left(3 A b^2-3 a b B+a^2 (2 A+3 C)\right) \text{Sin}\left[\frac{1}{2} (c+d x)\right]}{\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{(a+b \text{Cos}[c+d x])^2}, x, 4, 0\right\}$$

$$-\frac{2 \left(2 a^2 A b-A b^3-a^3 B+a^2 b C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^2 \left(a^2-b^2\right)^{3/2} d}+\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^2 d}+\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{a^2 d (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 (c+d x)])} 2 \text{Cos}[c+d x] (B+C \text{Cos}[c+d x]+A \text{Sec}[c+d x])$$

$$\left(-A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]-\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+A \text{Log}\left[\text{Cos}\left[\frac{1}{2} (c+d x)\right]+\text{Sin}\left[\frac{1}{2} (c+d x)\right]\right]+\right.$$

$$\frac{2 \left(A b^3+a^3 B-a^2 b (2 A+C)\right) \text{ArcTanh}\left[\frac{\text{Sec}\left[\frac{d x}{2}\right] (\text{Cos}[c]-i \text{Sin}[c]) \left(a \text{Sin}\left[\frac{d x}{2}\right]-b \text{Sin}\left[c+\frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2}}\right] (\text{Cos}[c]-i \text{Sin}[c])^3}{\left(\left(-a^2+b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2\right)^{3/2}}+$$

$$\left.\frac{a \left(A b^2+a (-b B+a C)\right) \text{Sec}[c] (-a \text{Sin}[c]+b \text{Sin}[d x])}{b \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^2},\ x,\ 5,\ 0\right\}$$

$$\frac{2\left(3\,a^2\,A\,b^2-2\,A\,b^4-2\,a^3\,b\,B+a\,b^3\,B+a^4\,C\right)\mathrm{ArcTan}\left[\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3\left(a^2-b^2\right)^{3/2}\,d}-$$

$$\frac{(2\,A\,b-a\,B)\,\mathrm{ArcTanh}[\mathrm{Sin}[c+d\,x]]}{a^3\,d}+\frac{\left(a^2\,A-2\,A\,b^2+a\,b\,B-a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a^2\left(a^2-b^2\right)d}+\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{2\,(-2\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^3\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{2\,(-2\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^3\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{\left(a^2-b^2\right)(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}\left(3\,a^2\,A\,b^2-2\,A\,b^4-2\,a^3\,b\,B+a\,b^3\,B+a^4\,C\right)\mathrm{Cos}[c+d\,x]^2$$

$$\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(-\left(4\,i\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\right.\right.\right.\right.$$

$$\left.\left.\left.\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Cos}[c]\right)\Big/$$

$$\left(a^3\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)-$$

$$\left(4\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\right.\right.\right.$$

$$\left.\left.\left.\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Sin}[c]\right)\Big/$$

$$\left.\left(a^3\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)\right)+$$

$$\left(2\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Sec}[c]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\right.$$
$$\left.\left(a\,A\,b^2\,\mathrm{Sin}[c]-a^2\,b\,B\,\mathrm{Sin}[c]+a^3\,C\,\mathrm{Sin}[c]-A\,b^3\,\mathrm{Sin}[d\,x]+a\,b^2\,B\,\mathrm{Sin}[d\,x]-a^2\,b\,C\,\mathrm{Sin}[d\,x]\right)\right)\Big/$$
$$\left(a^2\left(a^2-b^2\right)d\,(a+b\,\mathrm{Cos}[c+d\,x])\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])\right)+$$

$$\frac{2\,A\,\mathrm{Cos}[c+d\,x]^2\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{a^2\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}+$$

$$\frac{2\,A\,\mathrm{Cos}[c+d\,x]^2\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\mathrm{Sin}\left[\frac{d\,x}{2}\right]}{a^2\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])\left(\mathrm{Cos}\left[\frac{c}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}\right]\right)\left(\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right)}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 5,\ 0\right\}$$

$$-\frac{\left(6 a^4 A b-5 a^2 A b^3+2 A b^5-2 a^5 B-a^3 b^2 B+3 a^4 b C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^3 \left(a^2-b^2\right)^{5/2} d}+\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^3 d}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{\left(5 a^2 A b^2-2 A b^4-3 a^3 b B+a^4 C+2 a^2 b^2 C\right) \text{Sin}[c+d x]}{2 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{2 a^3 d (2 A+C+2 B \text{Cos}[c+d x]+C \text{Cos}[2 (c+d x)])} \text{Cos}[c+d x] (B+C \text{Cos}[c+d x]+A \text{Sec}[c+d x])$$

$$\left(-4 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]-\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]+4 A \text{Log}\left[\text{Cos}\left[\frac{1}{2}(c+d x)\right]+\text{Sin}\left[\frac{1}{2}(c+d x)\right]\right]-\right.$$

$$\frac{4 \left(5 a^2 A b^3-2 A b^5+2 a^5 B+a^3 b^2 B-3 a^4 b (2 A+C)\right) \text{ArcTanh}\left[\frac{\text{Sec}\left[\frac{d x}{2}\right] (\text{Cos}[c]-i \text{Sin}[c]) \left(a \text{Sin}\left[\frac{d x}{2}\right]-b \text{Sin}\left[c+\frac{d x}{2}\right]\right)}{\sqrt{-\left(a^2-b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2}}\right] (\text{Cos}[c]-i \text{Sin}[c])}{\left(a^2-b^2\right)^2 \sqrt{-\left(a^2-b^2\right) (\text{Cos}[c]-i \text{Sin}[c])^2}}+$$

$$\frac{1}{b \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2} a \text{Sec}[c] \left(-\left(2 a^2+b^2\right) \left(-2 A b^4-3 a^3 b B+a^4 C+a^2 b^2 (5 A+2 C)\right) \text{Sin}[c]+\right.$$

$$b \left(a \left(-7 A b^4-10 a^3 b B+a b^3 B+4 a^4 C+a^2 b^2 (16 A+5 C)\right) \text{Sin}[d x]+\right.$$

$$\left.\left.\left.b \left(a \left(A b^3+2 a^3 B+a b^2 B-a^2 b (4 A+3 C)\right) \text{Sin}[2 c+d x]+\left(-2 A b^4-3 a^3 b B+a^4 C+a^2 b^2 (5 A+2 C)\right) \text{Sin}[c+2 d x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^2}{(a+b \text{Cos}[c+d x])^3}, x, 6, 0\right\}$$

$$\frac{\left(12 a^4 A b^2-15 a^2 A b^4+6 A b^6-6 a^5 b B+5 a^3 b^3 B-2 a b^5 B+2 a^6 C+a^4 b^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4 \left(a^2-b^2\right)^{5/2} d}-$$

$$\frac{(3 A b-a B) \text{ArcTanh}[\text{Sin}[c+d x]]}{a^4 d}+\frac{\left(2 a^4 A-11 a^2 A b^2+6 A b^4+5 a^3 b B-2 a b^3 B-3 a^4 C\right) \text{Tan}[c+d x]}{2 a^3 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Tan}[c+d x]}{2 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{\left(6 a^2 A b^2-3 A b^4-4 a^3 b B+a b^3 B+2 a^4 C+a^2 b^2 C\right) \text{Tan}[c+d x]}{2 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{2\,(-3\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^4\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{2\,(-3\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^4\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^2\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}$$

$$\left(12\,a^4\,A\,b^2-15\,a^2\,A\,b^4+6\,A\,b^6-6\,a^5\,b\,B+5\,a^3\,b^3\,B-2\,a\,b^5\,B+2\,a^6\,C+a^4\,b^2\,C\right)\mathrm{Cos}[c+d\,x]^2$$

$$\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(-\left(2\,i\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Cos}[c]\right)\Big/$$

$$\left(a^4\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)-$$

$$\left(2\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\mathrm{Sin}[c]\right)\Big/$$

$$\left(a^4\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)\Bigg)+$$

$$\frac{1}{4\,a^3\,\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}$$

$$\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}[c]$$

$$\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)$$

$$\Big(-8\,a^5\,A\,b\,\mathrm{Sin}[c]+44\,a^3\,A\,b^3\,\mathrm{Sin}[c]-24\,a\,A\,b^5\,\mathrm{Sin}[c]-20\,a^4\,b^2\,B\,\mathrm{Sin}[c]+8\,a^2\,b^4\,B\,\mathrm{Sin}[c]+12\,a^5\,b\,C\,\mathrm{Sin}[c]+$$
$$8\,a^6\,A\,\mathrm{Sin}[d\,x]-26\,a^4\,A\,b^2\,\mathrm{Sin}[d\,x]-6\,a^2\,A\,b^4\,\mathrm{Sin}[d\,x]+12\,A\,b^6\,\mathrm{Sin}[d\,x]+10\,a^5\,b\,B\,\mathrm{Sin}[d\,x]+6\,a^3\,b^3\,B\,\mathrm{Sin}[d\,x]-$$
$$4\,a\,b^5\,B\,\mathrm{Sin}[d\,x]-6\,a^6\,C\,\mathrm{Sin}[d\,x]-6\,a^4\,b^2\,C\,\mathrm{Sin}[d\,x]+12\,a^4\,A\,b^2\,\mathrm{Sin}[2\,c+d\,x]+3\,a^2\,A\,b^4\,\mathrm{Sin}[2\,c+d\,x]-$$
$$6\,A\,b^6\,\mathrm{Sin}[2\,c+d\,x]-10\,a^5\,b\,B\,\mathrm{Sin}[2\,c+d\,x]-a^3\,b^3\,B\,\mathrm{Sin}[2\,c+d\,x]+2\,a\,b^5\,B\,\mathrm{Sin}[2\,c+d\,x]+6\,a^6\,C\,\mathrm{Sin}[2\,c+d\,x]+$$
$$3\,a^4\,b^2\,C\,\mathrm{Sin}[2\,c+d\,x]+8\,a^5\,A\,b\,\mathrm{Sin}[c+2\,d\,x]-38\,a^3\,A\,b^3\,\mathrm{Sin}[c+2\,d\,x]+21\,a\,A\,b^5\,\mathrm{Sin}[c+2\,d\,x]+$$
$$16\,a^4\,b^2\,B\,\mathrm{Sin}[c+2\,d\,x]-7\,a^2\,b^4\,B\,\mathrm{Sin}[c+2\,d\,x]-10\,a^5\,b\,C\,\mathrm{Sin}[c+2\,d\,x]+a^3\,b^3\,C\,\mathrm{Sin}[c+2\,d\,x]+$$
$$6\,a^3\,A\,b^3\,\mathrm{Sin}[3\,c+2\,d\,x]-3\,a\,A\,b^5\,\mathrm{Sin}[3\,c+2\,d\,x]-4\,a^4\,b^2\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+a^2\,b^4\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+$$
$$2\,a^5\,b\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+a^3\,b^3\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+2\,a^4\,A\,b^2\,\mathrm{Sin}[2\,c+3\,d\,x]-11\,a^2\,A\,b^4\,\mathrm{Sin}[2\,c+3\,d\,x]+$$
$$6\,A\,b^6\,\mathrm{Sin}[2\,c+3\,d\,x]+5\,a^3\,b^3\,B\,\mathrm{Sin}[2\,c+3\,d\,x]-2\,a\,b^5\,B\,\mathrm{Sin}[2\,c+3\,d\,x]-3\,a^4\,b^2\,C\,\mathrm{Sin}[2\,c+3\,d\,x]\Big)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+d\,x]^3\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{(a+b\,\mathrm{Cos}[c+d\,x])^4},\ x,\ 6,\ 0\right\}$$

$$\frac{(b B - 4 a C)\, x}{b^5} - \frac{\left(3 a^2 A b^6 + 2 A b^8 + 2 a^7 b B - 7 a^5 b^3 B + 8 a^3 b^5 B - 8 a b^7 B - 8 a^8 C + 28 a^6 b^2 C - 35 a^4 b^4 C + 20 a^2 b^6 C\right) \text{ArcTan}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{b^5 \left(a^2-b^2\right)^{7/2} d} + \frac{\left(4 a^2 A b^4 + 11 A b^6 - 6 a^5 b B + 17 a^3 b^3 B - 26 a b^5 B + 24 a^6 C - 68 a^4 b^2 C + 65 a^2 b^4 C - 6 b^6 C\right) \text{Sin}[c+d x]}{6 b^4 \left(a^2-b^2\right)^3 d} - \frac{\left(A b^2 - a b B + a^2 C\right) \text{Cos}[c+d x]^3 \text{Sin}[c+d x]}{3 b \left(a^2-b^2\right) d\, (a+b \text{Cos}[c+d x])^3} + \frac{\left(2 a^2 A b^2 + 3 A b^4 + a^3 b B - 6 a b^3 B - 4 a^4 C + 9 a^2 b^2 C\right) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{6 b^2 \left(a^2-b^2\right)^2 d\, (a+b \text{Cos}[c+d x])^2} - \frac{\left(3 a^2 A b^4 + 2 A b^6 - a^5 b B + 2 a^3 b^3 B - 6 a b^5 B + 4 a^6 C - 11 a^4 b^2 C + 12 a^2 b^4 C\right) \text{Cos}[c+d x]\, \text{Sin}[c+d x]}{2 b^3 \left(a^2-b^2\right)^3 d\, (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{24 b^5 d} \left(\frac{24 \left(-2 A b^8 - 2 a^7 b B + 7 a^5 b^3 B - 8 a^3 b^5 B + 8 a b^7 B + 8 a^8 C - 28 a^6 b^2 C + 35 a^4 b^4 C - a^2 b^6 (3 A + 20 C)\right) \text{ArcTanh}\left[\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}} + \frac{1}{\left(a^2-b^2\right)^3 (a+b \text{Cos}[c+d x])^3} \left(24 a^9 b B c - 36 a^7 b^3 B c - 36 a^5 b^5 B c + 84 a^3 b^7 B c - 36 a b^9 B c - 96 a^{10} c C + 144 a^8 b^2 c C + 144 a^6 b^4 c C - 336 a^4 b^6 c C + 144 a^2 b^8 c C + 24 a^9 b B d x - 36 a^7 b^3 B d x - 36 a^5 b^5 B d x + 84 a^3 b^7 B d x - 36 a b^9 B d x - 96 a^{10} C d x + 144 a^8 b^2 C d x + 144 a^6 b^4 C d x - 336 a^4 b^6 C d x + 144 a^2 b^8 C d x - 18 b \left(-a^2+b^2\right)^3 \left(4 a^2+b^2\right) (b B - 4 a C) (c+d x) \text{Cos}[c+d x] - 36 a b^2 \left(a^2-b^2\right)^3 (-b B + 4 a C) (c+d x) \text{Cos}[2 (c+d x)] + 6 a^6 b^4 B c \text{Cos}[3 (c+d x)] - 18 a^4 b^6 B c \text{Cos}[3 (c+d x)] + 18 a^2 b^8 B c \text{Cos}[3 (c+d x)] - 6 b^{10} B c \text{Cos}[3 (c+d x)] - 24 a^7 b^3 c C \text{Cos}[3 (c+d x)] + 72 a^5 b^5 c C \text{Cos}[3 (c+d x)] - 72 a^3 b^7 c C \text{Cos}[3 (c+d x)] + 24 a b^9 c C \text{Cos}[3 (c+d x)] + 6 a^6 b^4 B d x \text{Cos}[3 (c+d x)] - 18 a^4 b^6 B d x \text{Cos}[3 (c+d x)] + 18 a^2 b^8 B d x \text{Cos}[3 (c+d x)] - 6 b^{10} B d x \text{Cos}[3 (c+d x)] - 24 a^7 b^3 C d x \text{Cos}[3 (c+d x)] + 72 a^5 b^5 C d x \text{Cos}[3 (c+d x)] - 72 a^3 b^7 C d x \text{Cos}[3 (c+d x)] + 24 a b^9 C d x \text{Cos}[3 (c+d x)] + 18 a^5 A b^5 \text{Sin}[c+d x] + 39 a^3 A b^7 \text{Sin}[c+d x] + 18 a A b^9 \text{Sin}[c+d x] - 24 a^8 b^2 B \text{Sin}[c+d x] + 57 a^6 b^4 B \text{Sin}[c+d x] - 72 a^4 b^6 B \text{Sin}[c+d x] - 36 a^2 b^8 B \text{Sin}[c+d x] + 96 a^9 b C \text{Sin}[c+d x] - 228 a^7 b^3 C \text{Sin}[c+d x] + 135 a^5 b^5 C \text{Sin}[c+d x] + 90 a^3 b^7 C \text{Sin}[c+d x] - 18 a b^9 C \text{Sin}[c+d x] + 6 a^4 A b^6 \text{Sin}[2 (c+d x)] + 54 a^2 A b^8 \text{Sin}[2 (c+d x)] - 30 a^7 b^3 B \text{Sin}[2 (c+d x)] + 90 a^5 b^5 B \text{Sin}[2 (c+d x)] - 120 a^3 b^7 B \text{Sin}[2 (c+d x)] + 120 a^8 b^2 C \text{Sin}[2 (c+d x)] - 336 a^6 b^4 C \text{Sin}[2 (c+d x)] + 300 a^4 b^6 C \text{Sin}[2 (c+d x)] - 18 a^2 b^8 C \text{Sin}[2 (c+d x)] - 6 b^{10} C \text{Sin}[2 (c+d x)] + 2 a^5 A b^5 \text{Sin}[3 (c+d x)] - 5 a^3 A b^7 \text{Sin}[3 (c+d x)] + 18 a A b^9 \text{Sin}[3 (c+d x)] - 11 a^6 b^4 B \text{Sin}[3 (c+d x)] + 32 a^4 b^6 B \text{Sin}[3 (c+d x)] - 36 a^2 b^8 B \text{Sin}[3 (c+d x)] + 44 a^7 b^3 C \text{Sin}[3 (c+d x)] - 125 a^5 b^5 C \text{Sin}[3 (c+d x)] + 114 a^3 b^7 C \text{Sin}[3 (c+d x)] - 18 a b^9 C \text{Sin}[3 (c+d x)] + 3 a^6 b^4 C \text{Sin}[4 (c+d x)] - 9 a^4 b^6 C \text{Sin}[4 (c+d x)] + 9 a^2 b^8 C \text{Sin}[4 (c+d x)] - 3 b^{10} C \text{Sin}[4 (c+d x)]\right) \right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^2 \left(A + B \text{Cos}[c+d x] + C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^4}, x, 5, 0\right\}$$

$$\frac{C x}{b^4}+\frac{\left(a^3 A b^4+4 a A b^6-3 a^2 b^5 B-2 b^7 B-2 a^7 C+7 a^5 b^2 C-8 a^3 b^4 C+8 a b^6 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{b^4 \left(a^2-b^2\right)^{7/2} d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Cos}[c+d x]^2 \text{Sin}[c+d x]}{3 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+\frac{\left(3 a^2 A b^2+2 A b^4-5 a b^3 B-3 a^4 C+8 a^2 b^2 C\right) \text{Cos}[c+d x] \text{Sin}[c+d x]}{6 b^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}-$$

$$\frac{\left(13 a^2 A b^4+2 A b^6-4 a^3 b^3 B-11 a b^5 B+6 a^6 C-17 a^4 b^2 C+26 a^2 b^4 C\right) \text{Sin}[c+d x]}{6 b^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{24 b^4 d}\left(-\frac{24 \left(3 a^2 b^5 B+2 b^7 B-a^3 b^4 (A-8 C)+2 a^7 C-7 a^5 b^2 C-4 a b^6 (A+2 C)\right) \text{ArcTanh}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{-a^2+b^2}}\right]}{\left(-a^2+b^2\right)^{7/2}}+\right.$$

$$\frac{1}{\left(a^2-b^2\right)^3 (a+b \text{Cos}[c+d x])^3}\left(24 a^9 c C-36 a^7 b^2 c C-36 a^5 b^4 c C+84 a^3 b^6 c C-36 a b^8 c C+24 a^9 C d x-\right.$$

$$36 a^7 b^2 C d x-36 a^5 b^4 C d x+84 a^3 b^6 C d x-36 a b^8 C d x+18 b \left(a^2-b^2\right)^3 \left(4 a^2+b^2\right) C (c+d x) \text{Cos}[c+d x]+$$

$$36 a b^2 \left(a^2-b^2\right)^3 C (c+d x) \text{Cos}[2 (c+d x)]+6 a^6 b^3 c C \text{Cos}[3 (c+d x)]-18 a^4 b^5 c C \text{Cos}[3 (c+d x)]+$$

$$18 a^2 b^7 c C \text{Cos}[3 (c+d x)]-6 b^9 c C \text{Cos}[3 (c+d x)]+6 a^6 b^3 C d x \text{Cos}[3 (c+d x)]-18 a^4 b^5 C d x \text{Cos}[3 (c+d x)]+$$

$$18 a^2 b^7 C d x \text{Cos}[3 (c+d x)]-6 b^9 C d x \text{Cos}[3 (c+d x)]-51 a^4 A b^5 \text{Sin}[c+d x]-18 a^2 A b^7 \text{Sin}[c+d x]-$$

$$6 A b^9 \text{Sin}[c+d x]+18 a^5 b^4 B \text{Sin}[c+d x]+39 a^3 b^6 B \text{Sin}[c+d x]+18 a b^8 B \text{Sin}[c+d x]-24 a^8 b C \text{Sin}[c+d x]+$$

$$57 a^6 b^3 C \text{Sin}[c+d x]-72 a^4 b^5 C \text{Sin}[c+d x]-36 a^2 b^7 C \text{Sin}[c+d x]+6 a^5 A b^4 \text{Sin}[2 (c+d x)]-$$

$$54 a^3 A b^6 \text{Sin}[2 (c+d x)]-12 a A b^8 \text{Sin}[2 (c+d x)]+6 a^4 b^5 B \text{Sin}[2 (c+d x)]+54 a^2 b^7 B \text{Sin}[2 (c+d x)]-$$

$$30 a^7 b^2 C \text{Sin}[2 (c+d x)]+90 a^5 b^4 C \text{Sin}[2 (c+d x)]-120 a^3 b^6 C \text{Sin}[2 (c+d x)]+a^4 A b^5 \text{Sin}[3 (c+d x)]-$$

$$10 a^2 A b^7 \text{Sin}[3 (c+d x)]-6 A b^9 \text{Sin}[3 (c+d x)]+2 a^5 b^4 B \text{Sin}[3 (c+d x)]-5 a^3 b^6 B \text{Sin}[3 (c+d x)]+$$

$$\left.\left.18 a b^8 B \text{Sin}[3 (c+d x)]-11 a^6 b^3 C \text{Sin}[3 (c+d x)]+32 a^4 b^5 C \text{Sin}[3 (c+d x)]-36 a^2 b^7 C \text{Sin}[3 (c+d x)]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]}{(a+b \text{Cos}[c+d x])^4}, x, 6, 0\right\}$$

$$-\frac{\left(8 a^6 A b-8 a^4 A b^3+7 a^2 A b^5-2 A b^7-2 a^7 B-3 a^5 b^2 B+4 a^6 b C+a^4 b^3 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^4 \left(a^2-b^2\right)^{7/2} d}+$$

$$\frac{A \text{ArcTanh}[\text{Sin}[c+d x]]}{a^4 d}+\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+\frac{\left(8 a^2 A b^2-3 A b^4-5 a^3 b B+2 a^4 C+3 a^2 b^2 C\right) \text{Sin}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}+$$

$$\frac{\left(26 a^4 A b^2-17 a^2 A b^4+6 A b^6-11 a^5 b B-4 a^3 b^3 B+2 a^6 C+13 a^4 b^2 C\right) \text{Sin}[c+d x]}{6 a^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{2\,A\,\text{Cos}[c+d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])}{a^4\,d\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{2\,A\,\text{Cos}[c+d\,x]\,\text{Log}\left[\text{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\text{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])}{a^4\,d\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{(a^2-b^2)^3\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}$$
$$\left(-8\,a^6\,A\,b+8\,a^4\,A\,b^3-7\,a^2\,A\,b^5+2\,A\,b^7+2\,a^7\,B+3\,a^5\,b^2\,B-4\,a^6\,b\,C-a^4\,b^3\,C\right)\text{Cos}[c+d\,x]\,(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])$$
$$\left(-\left(2\,i\,\text{ArcTan}\left[\text{Sec}\left[\frac{d\,x}{2}\right]\right]\left(\frac{\text{Cos}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}-\frac{i\,\text{Sin}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}\right)\left(-i\,a\,\text{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\text{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\text{Cos}[c]\right)\Big/$$
$$\left(a^4\,d\,\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}\right)-$$
$$\left(2\,\text{ArcTan}\left[\text{Sec}\left[\frac{d\,x}{2}\right]\right]\left(\frac{\text{Cos}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}-\frac{i\,\text{Sin}[c]}{\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}}\right)\left(-i\,a\,\text{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\text{Sin}\left[c+\frac{d\,x}{2}\right]\right)\right]\text{Sin}[c]\right)\Big/$$
$$\left(a^4\,d\,\sqrt{-a^2\,\text{Cos}[2\,c]+b^2\,\text{Cos}[2\,c]+i\,a^2\,\text{Sin}[2\,c]-i\,b^2\,\text{Sin}[2\,c]}\right)\Bigg)+$$

$$\frac{1}{12\,a^3\,b\,(a^2-b^2)^3\,d\,(a+b\,\text{Cos}[c+d\,x])^3\,(2\,A+C+2\,B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[2\,c+2\,d\,x])}$$
$$\text{Cos}[c+d\,x]\,\text{Sec}[c]$$
$$(B+C\,\text{Cos}[c+d\,x]+A\,\text{Sec}[c+d\,x])$$
$$\Big(-104\,a^7\,A\,b^2\,\text{Sin}[c]-88\,a^5\,A\,b^4\,\text{Sin}[c]+78\,a^3\,A\,b^6\,\text{Sin}[c]-36\,a\,A\,b^8\,\text{Sin}[c]+44\,a^8\,b\,B\,\text{Sin}[c]+82\,a^6\,b^3\,B\,\text{Sin}[c]+$$
$$24\,a^4\,b^5\,B\,\text{Sin}[c]-8\,a^9\,C\,\text{Sin}[c]-64\,a^7\,b^2\,C\,\text{Sin}[c]-78\,a^5\,b^4\,C\,\text{Sin}[c]+228\,a^6\,A\,b^3\,\text{Sin}[d\,x]-114\,a^4\,A\,b^5\,\text{Sin}[d\,x]+$$
$$24\,a^2\,A\,b^7\,\text{Sin}[d\,x]+12\,A\,b^9\,\text{Sin}[d\,x]-102\,a^7\,b^2\,B\,\text{Sin}[d\,x]-36\,a^5\,b^4\,B\,\text{Sin}[d\,x]-12\,a^3\,b^6\,B\,\text{Sin}[d\,x]+$$
$$24\,a^8\,b\,C\,\text{Sin}[d\,x]+102\,a^6\,b^3\,C\,\text{Sin}[d\,x]+24\,a^4\,b^5\,C\,\text{Sin}[d\,x]-84\,a^6\,A\,b^3\,\text{Sin}[2\,c+d\,x]+12\,a^4\,A\,b^5\,\text{Sin}[2\,c+d\,x]+$$
$$3\,a^2\,A\,b^7\,\text{Sin}[2\,c+d\,x]-6\,A\,b^9\,\text{Sin}[2\,c+d\,x]+30\,a^7\,b^2\,B\,\text{Sin}[2\,c+d\,x]+45\,a^5\,b^4\,B\,\text{Sin}[2\,c+d\,x]-$$
$$60\,a^6\,b^3\,C\,\text{Sin}[2\,c+d\,x]-15\,a^4\,b^5\,C\,\text{Sin}[2\,c+d\,x]+138\,a^5\,A\,b^4\,\text{Sin}[c+2\,d\,x]-96\,a^3\,A\,b^6\,\text{Sin}[c+2\,d\,x]+$$
$$33\,a\,A\,b^8\,\text{Sin}[c+2\,d\,x]-60\,a^6\,b^3\,B\,\text{Sin}[c+2\,d\,x]-15\,a^4\,b^5\,B\,\text{Sin}[c+2\,d\,x]+12\,a^7\,b^2\,C\,\text{Sin}[c+2\,d\,x]+$$
$$66\,a^5\,b^4\,C\,\text{Sin}[c+2\,d\,x]-3\,a^3\,b^6\,C\,\text{Sin}[c+2\,d\,x]-18\,a^5\,A\,b^4\,\text{Sin}[3\,c+2\,d\,x]+6\,a^3\,A\,b^6\,\text{Sin}[3\,c+2\,d\,x]-$$
$$3\,a\,A\,b^8\,\text{Sin}[3\,c+2\,d\,x]+6\,a^6\,b^3\,B\,\text{Sin}[3\,c+2\,d\,x]+9\,a^4\,b^5\,B\,\text{Sin}[3\,c+2\,d\,x]-12\,a^5\,b^4\,C\,\text{Sin}[3\,c+2\,d\,x]-$$
$$3\,a^3\,b^6\,C\,\text{Sin}[3\,c+2\,d\,x]+26\,a^4\,A\,b^5\,\text{Sin}[2\,c+3\,d\,x]-17\,a^2\,A\,b^7\,\text{Sin}[2\,c+3\,d\,x]+6\,A\,b^9\,\text{Sin}[2\,c+3\,d\,x]-$$
$$11\,a^5\,b^4\,B\,\text{Sin}[2\,c+3\,d\,x]-4\,a^3\,b^6\,B\,\text{Sin}[2\,c+3\,d\,x]+2\,a^6\,b^3\,C\,\text{Sin}[2\,c+3\,d\,x]+13\,a^4\,b^5\,C\,\text{Sin}[2\,c+3\,d\,x]\Big)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^4},\ x,\ 7,\ 0\right\}$$

$$\frac{\left(20 a^6 A b^2-35 a^4 A b^4+28 a^2 A b^6-8 A b^8-8 a^7 b B+8 a^5 b^3 B-7 a^3 b^5 B+2 a b^7 B+2 a^8 C+3 a^6 b^2 C\right) \text{ArcTan}\left[\frac{(a-b) \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{a^2-b^2}}\right]}{a^5 \left(a^2-b^2\right)^{7/2} d}-$$

$$\frac{(4 A b-a B) \text{ArcTanh}[\text{Sin}[c+d x]]}{a^5 d}+$$

$$\frac{\left(6 a^6 A-65 a^4 A b^2+68 a^2 A b^4-24 A b^6+26 a^5 b B-17 a^3 b^3 B+6 a b^5 B-11 a^6 C-4 a^4 b^2 C\right) \text{Tan}[c+d x]}{6 a^4 \left(a^2-b^2\right)^3 d}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Tan}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^3}+\frac{\left(9 a^2 A b^2-4 A b^4-6 a^3 b B+a b^3 B+3 a^4 C+2 a^2 b^2 C\right) \text{Tan}[c+d x]}{6 a^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])^2}+$$

$$\frac{\left(12 a^4 A b^2-11 a^2 A b^4+4 A b^6-6 a^5 b B+2 a^3 b^3 B-a b^5 B+2 a^6 C+3 a^4 b^2 C\right) \text{Tan}[c+d x]}{2 a^3 \left(a^2-b^2\right)^3 d (a+b \text{Cos}[c+d x])}$$

$$-\frac{2\,(-4\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]-\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^5\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{2\,(-4\,A\,b+a\,B)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{Log}\left[\mathrm{Cos}\left[\frac{c}{2}+\frac{d\,x}{2}\right]+\mathrm{Sin}\left[\frac{c}{2}+\frac{d\,x}{2}\right]\right]\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)}{a^5\,d\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}+$$

$$\frac{1}{\left(a^2-b^2\right)^3\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}$$

$$\left(20\,a^6\,A\,b^2-35\,a^4\,A\,b^4+28\,a^2\,A\,b^6-8\,A\,b^8-8\,a^7\,b\,B+8\,a^5\,b^3\,B-7\,a^3\,b^5\,B+2\,a\,b^7\,B+2\,a^8\,C+3\,a^6\,b^2\,C\right)\mathrm{Cos}[c+d\,x]^2$$

$$\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)\left(-\left(2\,i\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\right.\right.\right.\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\right.$$

$$\left.\left.\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\Big]\,\mathrm{Cos}[c]\Bigg)\Big/$$

$$\left(a^5\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)-$$

$$\left(2\,\mathrm{ArcTan}\left[\mathrm{Sec}\left[\frac{d\,x}{2}\right]\right.\left(\frac{\mathrm{Cos}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}-\right.\right.$$

$$\left.\left.\frac{i\,\mathrm{Sin}[c]}{\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}}\right)\left(-i\,a\,\mathrm{Sin}\left[\frac{d\,x}{2}\right]+i\,b\,\mathrm{Sin}\left[c+\frac{d\,x}{2}\right]\right)\Big]\,\mathrm{Sin}[c]\Bigg)\Big/$$

$$\left(a^5\,d\,\sqrt{-a^2\,\mathrm{Cos}[2\,c]+b^2\,\mathrm{Cos}[2\,c]+i\,a^2\,\mathrm{Sin}[2\,c]-i\,b^2\,\mathrm{Sin}[2\,c]}\right)\Bigg)+$$

$$\frac{1}{24\,a^4\,\left(a^2-b^2\right)^3\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^3\,(2\,A+C+2\,B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[2\,c+2\,d\,x])}$$

$$\mathrm{Cos}[c+d\,x]\,\mathrm{Sec}[c]$$

$$\left(C+B\,\mathrm{Sec}[c+d\,x]+A\,\mathrm{Sec}[c+d\,x]^2\right)$$

$$\begin{aligned}&\Big(-72\,a^8\,A\,b\,\mathrm{Sin}[c]+762\,a^6\,A\,b^3\,\mathrm{Sin}[c]-621\,a^4\,A\,b^5\,\mathrm{Sin}[c]+84\,a^2\,A\,b^7\,\mathrm{Sin}[c]+72\,A\,b^9\,\mathrm{Sin}[c]-312\,a^7\,b^2\,B\,\mathrm{Sin}[c]+\\&126\,a^5\,b^4\,B\,\mathrm{Sin}[c]-21\,a^3\,b^6\,B\,\mathrm{Sin}[c]-18\,a\,b^8\,B\,\mathrm{Sin}[c]+132\,a^8\,b\,C\,\mathrm{Sin}[c]+81\,a^6\,b^3\,C\,\mathrm{Sin}[c]+12\,a^4\,b^5\,C\,\mathrm{Sin}[c]+\\&48\,a^9\,A\,\mathrm{Sin}[d\,x]-260\,a^7\,A\,b^2\,\mathrm{Sin}[d\,x]-400\,a^5\,A\,b^4\,\mathrm{Sin}[d\,x]+663\,a^3\,A\,b^6\,\mathrm{Sin}[d\,x]-276\,a\,A\,b^8\,\mathrm{Sin}[d\,x]+\\&104\,a^8\,b\,B\,\mathrm{Sin}[d\,x]+226\,a^6\,b^3\,B\,\mathrm{Sin}[d\,x]-174\,a^4\,b^5\,B\,\mathrm{Sin}[d\,x]+69\,a^2\,b^7\,B\,\mathrm{Sin}[d\,x]-44\,a^9\,C\,\mathrm{Sin}[d\,x]-\\&142\,a^7\,b^2\,C\,\mathrm{Sin}[d\,x]-39\,a^5\,b^4\,C\,\mathrm{Sin}[d\,x]+152\,a^7\,A\,b^2\,\mathrm{Sin}[2\,c+d\,x]+226\,a^5\,A\,b^4\,\mathrm{Sin}[2\,c+d\,x]-369\,a^3\,A\,b^6\,\mathrm{Sin}[2\,c+d\,x]+\\&156\,a\,A\,b^8\,\mathrm{Sin}[2\,c+d\,x]-104\,a^8\,b\,B\,\mathrm{Sin}[2\,c+d\,x]-106\,a^6\,b^3\,B\,\mathrm{Sin}[2\,c+d\,x]+84\,a^4\,b^5\,B\,\mathrm{Sin}[2\,c+d\,x]-\\&39\,a^2\,b^7\,B\,\mathrm{Sin}[2\,c+d\,x]+44\,a^9\,C\,\mathrm{Sin}[2\,c+d\,x]+88\,a^7\,b^2\,C\,\mathrm{Sin}[2\,c+d\,x]+33\,a^5\,b^4\,C\,\mathrm{Sin}[2\,c+d\,x]+\\&72\,a^8\,A\,b\,\mathrm{Sin}[c+2\,d\,x]-600\,a^6\,A\,b^3\,\mathrm{Sin}[c+2\,d\,x]+463\,a^4\,A\,b^5\,\mathrm{Sin}[c+2\,d\,x]-28\,a^2\,A\,b^7\,\mathrm{Sin}[c+2\,d\,x]-\\&72\,A\,b^9\,\mathrm{Sin}[c+2\,d\,x]+228\,a^7\,b^2\,B\,\mathrm{Sin}[c+2\,d\,x]-88\,a^5\,b^4\,B\,\mathrm{Sin}[c+2\,d\,x]+7\,a^3\,b^6\,B\,\mathrm{Sin}[c+2\,d\,x]+\\&18\,a\,b^8\,B\,\mathrm{Sin}[c+2\,d\,x]-102\,a^8\,b\,C\,\mathrm{Sin}[c+2\,d\,x]-47\,a^6\,b^3\,C\,\mathrm{Sin}[c+2\,d\,x]-16\,a^4\,b^5\,C\,\mathrm{Sin}[c+2\,d\,x]+\\&156\,a^6\,A\,b^3\,\mathrm{Sin}[3\,c+2\,d\,x]-93\,a^4\,A\,b^5\,\mathrm{Sin}[3\,c+2\,d\,x]-12\,a^2\,A\,b^7\,\mathrm{Sin}[3\,c+2\,d\,x]+24\,A\,b^9\,\mathrm{Sin}[3\,c+2\,d\,x]-\\&84\,a^7\,b^2\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+12\,a^5\,b^4\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+3\,a^3\,b^6\,B\,\mathrm{Sin}[3\,c+2\,d\,x]-6\,a\,b^8\,B\,\mathrm{Sin}[3\,c+2\,d\,x]+\\&30\,a^8\,b\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+45\,a^6\,b^3\,C\,\mathrm{Sin}[3\,c+2\,d\,x]+36\,a^7\,A\,b^2\,\mathrm{Sin}[2\,c+3\,d\,x]-354\,a^5\,A\,b^4\,\mathrm{Sin}[2\,c+3\,d\,x]+\\&375\,a^3\,A\,b^6\,\mathrm{Sin}[2\,c+3\,d\,x]-132\,a\,A\,b^8\,\mathrm{Sin}[2\,c+3\,d\,x]+138\,a^6\,b^3\,B\,\mathrm{Sin}[2\,c+3\,d\,x]-96\,a^4\,b^5\,B\,\mathrm{Sin}[2\,c+3\,d\,x]+\\&33\,a^2\,b^7\,B\,\mathrm{Sin}[2\,c+3\,d\,x]-60\,a^7\,b^2\,C\,\mathrm{Sin}[2\,c+3\,d\,x]-15\,a^5\,b^4\,C\,\mathrm{Sin}[2\,c+3\,d\,x]+36\,a^5\,A\,b^4\,\mathrm{Sin}[4\,c+3\,d\,x]-\\&33\,a^3\,A\,b^6\,\mathrm{Sin}[4\,c+3\,d\,x]+12\,a\,A\,b^8\,\mathrm{Sin}[4\,c+3\,d\,x]-18\,a^6\,b^3\,B\,\mathrm{Sin}[4\,c+3\,d\,x]+6\,a^4\,b^5\,B\,\mathrm{Sin}[4\,c+3\,d\,x]-\\&3\,a^2\,b^7\,B\,\mathrm{Sin}[4\,c+3\,d\,x]+6\,a^7\,b^2\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+9\,a^5\,b^4\,C\,\mathrm{Sin}[4\,c+3\,d\,x]+6\,a^6\,A\,b^3\,\mathrm{Sin}[3\,c+4\,d\,x]-\\&65\,a^4\,A\,b^5\,\mathrm{Sin}[3\,c+4\,d\,x]+68\,a^2\,A\,b^7\,\mathrm{Sin}[3\,c+4\,d\,x]-24\,A\,b^9\,\mathrm{Sin}[3\,c+4\,d\,x]+26\,a^5\,b^4\,B\,\mathrm{Sin}[3\,c+4\,d\,x]-\\&17\,a^3\,b^6\,B\,\mathrm{Sin}[3\,c+4\,d\,x]+6\,a\,b^8\,B\,\mathrm{Sin}[3\,c+4\,d\,x]-11\,a^6\,b^3\,C\,\mathrm{Sin}[3\,c+4\,d\,x]-4\,a^4\,b^5\,C\,\mathrm{Sin}[3\,c+4\,d\,x]\Big)\end{aligned}$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\ x,\ 12,\ 0\right\}$$

$$-\frac{(a+b)\left(156 a^2 A b-9 A b^3+128 a^3 B+24 a b^2 B+240 a^2 b C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{192 a^2 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{\left(228 a^2 A b-3 A b^3+128 a^3 B+136 a b^2 B+336 a^2 b C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{192 a d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{\left(48 a^4 A+24 a^2 A b^2+3 A b^4+96 a^3 b B-8 a b^3 B+64 a^4 C+48 a^2 b^2 C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+d x),\frac{2 b}{a+b}\right]}{64 a^2 d\sqrt{a+b\,\mathrm{Cos}[c+d x]}}+$$

$$\frac{\left(156 a^2 A b-9 A b^3+128 a^3 B+24 a b^2 B+240 a^2 b C\right)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Tan}[c+d x]}{192 a^2 d}+$$

$$\frac{\left(36 a^2 A+3 A b^2+56 a b B+48 a^2 C\right)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Sec}[c+d x]\,\mathrm{Tan}[c+d x]}{96 a d}+$$

$$\frac{(3 A b+8 a B)\sqrt{a+b\,\mathrm{Cos}[c+d x]}\,\mathrm{Sec}[c+d x]^2\,\mathrm{Tan}[c+d x]}{24 d}+\frac{A\,(a+b\,\mathrm{Cos}[c+d x])^{3/2}\,\mathrm{Sec}[c+d x]^3\,\mathrm{Tan}[c+d x]}{4 d}$$

$$\frac{1}{768\,a^2\,d}\left(\frac{2\left(144\,a^3\,A\,b+12\,a\,A\,b^3+224\,a^2\,b^2\,B+192\,a^3\,b\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.$$

$$\frac{2\left(288\,a^4\,A-12\,a^2\,A\,b^2+27\,A\,b^4+448\,a^3\,b\,B-72\,a\,b^3\,B+384\,a^4\,C+48\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left(2\,i\,\left(-156\,a^2\,A\,b^2+9\,A\,b^4-128\,a^3\,b\,B-24\,a\,b^3\,B-240\,a^2\,b^2\,C\right)\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\right.$$

$$\mathrm{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\mathrm{Sin}[c+d\,x]\right)\Bigg/$$

$$\left(a\,\sqrt{-\frac{1}{a+b}}\,\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\,\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{1}{24}\,\mathrm{Sec}[c+d\,x]^3\,(9\,A\,b\,\mathrm{Sin}[c+d\,x]+8\,a\,B\,\mathrm{Sin}[c+d\,x])+\right.$$

$$\frac{\mathrm{Sec}[c+d\,x]^2\left(36\,a^2\,A\,\mathrm{Sin}[c+d\,x]+3\,A\,b^2\,\mathrm{Sin}[c+d\,x]+56\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+48\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{96\,a}+$$

$$\frac{\mathrm{Sec}[c+d\,x]\left(156\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]-9\,A\,b^3\,\mathrm{Sin}[c+d\,x]+128\,a^3\,B\,\mathrm{Sin}[c+d\,x]+24\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]+240\,a^2\,b\,C\,\mathrm{Sin}[c+d\,x]\right)}{192\,a^2}$$

$$\left.+\frac{1}{4}\,a\,A\,\mathrm{Sec}[c+d\,x]^3\,\mathrm{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^5,\,x,\,12,\,0\right\}$$

$$-\frac{(a+b)\left(284a^2Ab+15Ab^3+128a^3B+264ab^2B+432a^2bC\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{192ad\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(356a^2Ab+133Ab^3+128a^3B+472ab^2B+528a^2bC+384b^3C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{192d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(48a^4A+120a^2Ab^2-5Ab^4+160a^3bB+40ab^3B+64a^4C+240a^2b^2C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{a+b}}\,\mathrm{EllipticPi}\left[2,\frac{1}{2}(c+dx),\frac{2b}{a+b}\right]}{64ad\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(284a^2Ab+15Ab^3+128a^3B+264ab^2B+432a^2bC\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}[c+dx]}{192ad}+$$

$$\frac{\left(12a^2A+5Ab^2+24abB+16a^2C\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{32d}+$$

$$\frac{(5Ab+8aB)(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sec}[c+dx]^2\,\mathrm{Tan}[c+dx]}{24d}+\frac{A(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\mathrm{Sec}[c+dx]^3\,\mathrm{Tan}[c+dx]}{4d}$$

$$\frac{1}{768\,a\,d}\left(\frac{2\left(144\,a^3\,A\,b+236\,a\,A\,b^3+416\,a^2\,b^2\,B+192\,a^3\,b\,C+768\,a\,b^3\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\right.$$

$$\frac{2\left(288\,a^4\,A+436\,a^2\,A\,b^2-45\,A\,b^4+832\,a^3\,b\,B-24\,a\,b^3\,B+384\,a^4\,C+1008\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$-\left(2\,i\left(-284\,a^2\,A\,b^2-15\,A\,b^4-128\,a^3\,b\,B-264\,a\,b^3\,B-432\,a^2\,b^2\,C\right)\sqrt{\frac{b-b\,\text{Cos}[c+d\,x]}{a+b}}\sqrt{-\frac{b+b\,\text{Cos}[c+d\,x]}{a-b}}\right.$$

$$\text{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\text{EllipticPi}\left[\frac{a+b}{a},\,i\,\text{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\text{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\sqrt{-\frac{1}{a+b}}\,\sqrt{1-\text{Cos}[c+d\,x]^2}\,\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\text{Cos}[c+d\,x])+(a+b\,\text{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\text{Cos}[c+d\,x])+2\,(a+b\,\text{Cos}[c+d\,x])^2\right)\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\frac{1}{24}\,\text{Sec}[c+d\,x]^3\left(17\,a\,A\,b\,\text{Sin}[c+d\,x]+8\,a^2\,B\,\text{Sin}[c+d\,x]\right)+\right.$$

$$\frac{1}{96}\,\text{Sec}[c+d\,x]^2\left(36\,a^2\,A\,\text{Sin}[c+d\,x]+59\,A\,b^2\,\text{Sin}[c+d\,x]+104\,a\,b\,B\,\text{Sin}[c+d\,x]+48\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{1}{192\,a}\,\text{Sec}[c+d\,x]\left(284\,a^2\,A\,b\,\text{Sin}[c+d\,x]+15\,A\,b^3\,\text{Sin}[c+d\,x]+128\,a^3\,B\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\left.264\,a\,b^2\,B\,\text{Sin}[c+d\,x]+432\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)+\frac{1}{4}\,a^2\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^6,\,x,\,13,\,0\right\}$$

$$-\frac{1}{1920\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(1024\,a^4\,A+1692\,a^2\,A\,b^2-45\,A\,b^4+2840\,a^3\,b\,B+150\,a\,b^3\,B+1280\,a^4\,C+2640\,a^2\,b^2\,C\right)$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticE}\left[\frac{1}{2}(c+d\,x),\;\frac{2\,b}{a+b}\right]+$$

$$\frac{\left(1024\,a^4\,A+3236\,a^2\,A\,b^2-15\,A\,b^4+3560\,a^3\,b\,B+1330\,a\,b^3\,B+1280\,a^4\,C+4720\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticF}\left[\frac{1}{2}(c+d\,x),\;\frac{2\,b}{a+b}\right]}{1920\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{128\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(240\,a^4\,A\,b+40\,a^2\,A\,b^3+3\,A\,b^5+96\,a^5\,B+240\,a^3\,b^2\,B-10\,a\,b^4\,B+320\,a^4\,b\,C+80\,a^2\,b^3\,C\right)$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\;\text{EllipticPi}\left[2,\;\frac{1}{2}(c+d\,x),\;\frac{2\,b}{a+b}\right]+$$

$$\frac{\left(1024\,a^4\,A+1692\,a^2\,A\,b^2-45\,A\,b^4+2840\,a^3\,b\,B+150\,a\,b^3\,B+1280\,a^4\,C+2640\,a^2\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}[c+d\,x]}{1920\,a^2\,d}+$$

$$\frac{\left(772\,a^2\,A\,b+15\,A\,b^3+360\,a^3\,B+590\,a\,b^2\,B+1040\,a^2\,b\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]\;\text{Tan}[c+d\,x]}{960\,a\,d}+$$

$$\frac{\left(64\,a^2\,A+15\,A\,b^2+110\,a\,b\,B+80\,a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{240\,d}+$$

$$\frac{(A\,b+2\,a\,B)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]}{8\,d}+\frac{A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]}{5\,d}$$

$$\frac{1}{7680\,a^2\,d}\left(\frac{2\left(3088\,a^3\,A\,b^2+60\,a\,A\,b^4+1440\,a^4\,b\,B+2360\,a^2\,b^3\,B+4160\,a^3\,b^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\right.$$

$$\frac{1}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\left(6176\,a^4\,A\,b-492\,a^2\,A\,b^3+135\,A\,b^5+2880\,a^5\,B+4360\,a^3\,b^2\,B-450\,a\,b^4\,B+8320\,a^4\,b\,C-240\,a^2\,b^3\,C\right)$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]-$$

$$\left(2\,i\left(-1024\,a^4\,A\,b-1692\,a^2\,A\,b^3+45\,A\,b^5-2840\,a^3\,b^2\,B-150\,a\,b^4\,B-1280\,a^4\,b\,C-2640\,a^2\,b^3\,C\right)\sqrt{\frac{b-b\,\mathrm{Cos}[c+d\,x]}{a+b}}\right.$$

$$\sqrt{-\frac{b+b\,\mathrm{Cos}[c+d\,x]}{a-b}}\;\mathrm{Cos}[2\,(c+d\,x)]\left(2\,a\,(a-b)\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]+\right.$$

$$b\left(2\,a\,\mathrm{EllipticF}\left[i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]-\right.$$

$$\left.\left.\left.b\,\mathrm{EllipticPi}\left[\frac{a+b}{a},\,i\,\mathrm{ArcSinh}\left[\sqrt{-\frac{1}{a+b}}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right],\,\frac{a+b}{a-b}\right]\right)\right)\mathrm{Sin}[c+d\,x]\right)\Bigg/$$

$$\left(a\sqrt{-\frac{1}{a+b}}\,\sqrt{1-\mathrm{Cos}[c+d\,x]^2}\,\sqrt{-\frac{a^2-b^2-2\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+(a+b\,\mathrm{Cos}[c+d\,x])^2}{b^2}}\right.$$

$$\left.\left.\left(2\,a^2-b^2-4\,a\,(a+b\,\mathrm{Cos}[c+d\,x])+2\,(a+b\,\mathrm{Cos}[c+d\,x])^2\right)\right)\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\left(\frac{1}{40}\,\mathrm{Sec}[c+d\,x]^4\left(21\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+10\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{1}{240}\,\mathrm{Sec}[c+d\,x]^3\right.$$

$$\left(64\,a^2\,A\,\mathrm{Sin}[c+d\,x]+93\,A\,b^2\,\mathrm{Sin}[c+d\,x]+170\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+80\,a^2\,C\,\mathrm{Sin}[c+d\,x]\right)+\frac{1}{960\,a}\mathrm{Sec}[c+d\,x]^2$$

$$\left(772\,a^2\,A\,b\,\mathrm{Sin}[c+d\,x]+15\,A\,b^3\,\mathrm{Sin}[c+d\,x]+360\,a^3\,B\,\mathrm{Sin}[c+d\,x]+590\,a\,b^2\,B\,\mathrm{Sin}[c+d\,x]+1040\,a^2\,b\,C\,\mathrm{Sin}[c+d\,x]\right)+$$

$$\frac{1}{1920\,a^2}\mathrm{Sec}[c+d\,x]\left(1024\,a^4\,A\,\mathrm{Sin}[c+d\,x]+1692\,a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]-45\,A\,b^4\,\mathrm{Sin}[c+d\,x]+2840\,a^3\,b\,B\,\mathrm{Sin}[c+d\,x]+\right.$$

$$\left.\left.150\,a\,b^3\,B\,\mathrm{Sin}[c+d\,x]+1280\,a^4\,C\,\mathrm{Sin}[c+d\,x]+2640\,a^2\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)+\frac{1}{5}\,a^2\,A\,\mathrm{Sec}[c+d\,x]^4\,\mathrm{Tan}[c+d\,x]\right)$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,8,\,0\right\}$$

$$\frac{2\,(a+b)\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,(b\,B-a\,C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\;\mathrm{EllipticPi}\left[2,\,\frac{1}{2}\,(c+d\,x),\,\frac{2\,b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\int \frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\ x,\ 9,\ 0\right\}$$

$$-\frac{A\,(a+b)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{(A+2\,C)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(A\,b-2\,a\,B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{a\,d}$$

$$\int \frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a\,(a-b)\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,C\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{a\left(a^2-b^2\right)d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\int \frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\ x,\ 10,\ 0\right\}$$

$$-\frac{\left(a^2\,A-3\,A\,b^2+2\,a\,b\,B-2\,a^2\,C\right)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^2\,(a-b)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{A\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{(3\,A\,b-2\,a\,B)\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{a+b}}\,\mathrm{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\mathrm{Tan}[c+d\,x]}{a\left(a^2-b^2\right)d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{\left(a^2\,A-3\,A\,b^2+2\,a\,b\,B-2\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}[c+d\,x]}{a^2\left(a^2-b^2\right)d}$$

$$\int \frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 10,\ 0\right\}$$

$$-\frac{2\left(7\,a^2\,A\,b^2-3\,A\,b^4-4\,a^3\,b\,B+a^4\,C+3\,a^2\,b^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^2\,(a-b)^2\,b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a\,b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{2\left(7\,a^2\,A\,b^2-3\,A\,b^4-4\,a^3\,b\,B+a^4\,C+3\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\int\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]}{(a+b\,\text{Cos}[c+d\,x])^{5/2}}\,dx$$

Unable to integrate:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 11,\ 0\right\}$$

$$-\frac{\left(3\,a^4\,A-26\,a^2\,A\,b^2+15\,A\,b^4+14\,a^3\,b\,B-6\,a\,b^3\,B-8\,a^4\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^3\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(3\,a^2\,A-5\,A\,b^2+2\,a\,b\,B-2\,a^2\,C\right)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{3\,a^2\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(5\,A\,b-2\,a\,B)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{a+b}}\ \text{EllipticPi}\left[2,\ \frac{1}{2}\,(c+d\,x),\ \frac{2\,b}{a+b}\right]}{a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Tan}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+$$

$$\frac{2\left(9\,a^2\,A\,b^2-5\,A\,b^4-6\,a^3\,b\,B+2\,a\,b^3\,B+3\,a^4\,C+a^2\,b^2\,C\right)\text{Tan}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(3\,a^4\,A-26\,a^2\,A\,b^2+15\,A\,b^4+14\,a^3\,b\,B-6\,a\,b^3\,B-8\,a^4\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Tan}[c+d\,x]}{3\,a^3\,\left(a^2-b^2\right)^2\,d}$$

$$\int\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^{5/2}}\,dx$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^3}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 12,\ 0\right\}$$

$$\frac{\left(33 a^4 A b-170 a^2 A b^3+105 A b^5-12 a^5 B+104 a^3 b^2 B-60 a b^4 B-56 a^4 b C+24 a^2 b^3 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{12 a^4 (a-b)^2 (a+b) d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$-\frac{\left(27 a^2 A b-35 A b^3-12 a^3 B+20 a b^2 B-8 a^2 b C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{12 a^3 \left(a^2-b^2\right) d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{\left(4 a^2 A+35 A b^2-20 a b B+8 a^2 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2}(c+d x), \frac{2 b}{a+b}\right]}{4 a^4 d \sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\frac{\left(33 a^4 A b-170 a^2 A b^3+105 A b^5-12 a^5 B+104 a^3 b^2 B-60 a b^4 B-56 a^4 b C+24 a^2 b^3 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}[c+d x]}{12 a^4 \left(a^2-b^2\right)^2 d}+$$

$$\frac{2\left(A b^2-a b B+a^2 C\right) \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{3 a \left(a^2-b^2\right) d (a+b \operatorname{Cos}[c+d x])^{3/2}}+\frac{2\left(11 a^2 A b^2-7 A b^4-8 a^3 b B+4 a b^3 B+5 a^4 C-a^2 b^2 C\right) \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{3 a^2 \left(a^2-b^2\right)^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{\left(3 a^4 A-54 a^2 A b^2+35 A b^4+36 a^3 b B-20 a b^3 B-24 a^4 C+8 a^2 b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{6 a^3 \left(a^2-b^2\right)^2 d}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(\frac{2 \left(12 a^5 A b - 216 a^3 A b^3 + 140 a A b^5 + 144 a^4 b^2 B - 80 a^2 b^4 B - 96 a^5 b C + 32 a^3 b^3 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticF}\left[\frac{1}{2} (c+d x), \frac{2 b}{a+b}\right]}{\sqrt{a+b \operatorname{Cos}[c+d x]}} + \right.$$

$$\frac{1}{\sqrt{a+b \operatorname{Cos}[c+d x]}} 2 \left(24 a^6 A + 195 a^4 A b^2 - 566 a^2 A b^4 + 315 A b^6 - 132 a^5 b B + 344 a^3 b^3 B - 180 a b^5 B + \right.$$

$$\left. 48 a^6 C - 152 a^4 b^2 C + 72 a^2 b^4 C\right) \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{a+b}} \operatorname{EllipticPi}\left[2, \frac{1}{2} (c+d x), \frac{2 b}{a+b}\right] -$$

$$\left(2 i \left(33 a^4 A b^2 - 170 a^2 A b^4 + 105 A b^6 - 12 a^5 b B + 104 a^3 b^3 B - 60 a b^5 B - 56 a^4 b^2 C + 24 a^2 b^4 C\right) \sqrt{\frac{b - b \operatorname{Cos}[c+d x]}{a+b}} \right.$$

$$\sqrt{-\frac{b+b \operatorname{Cos}[c+d x]}{a-b}} \operatorname{Cos}[2 (c+d x)] \left(2 a (a-b) \operatorname{EllipticE}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right] + \right.$$

$$b \left(2 a \operatorname{EllipticF}\left[i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right] - \right.$$

$$\left.\left.\left. b \operatorname{EllipticPi}\left[\frac{a+b}{a}, i \operatorname{ArcSinh}\left[\sqrt{-\frac{1}{a+b}} \sqrt{a+b \operatorname{Cos}[c+d x]}\right], \frac{a+b}{a-b}\right]\right)\right) \operatorname{Sin}[c+d x]\right) \Big/$$

$$\left(a \sqrt{-\frac{1}{a+b}} \sqrt{1-\operatorname{Cos}[c+d x]^2} \sqrt{-\frac{a^2-b^2-2 a (a+b \operatorname{Cos}[c+d x])+(a+b \operatorname{Cos}[c+d x])^2}{b^2}} \right.$$

$$\left.\left.\left(2 a^2 - b^2 - 4 a (a+b \operatorname{Cos}[c+d x]) + 2 (a+b \operatorname{Cos}[c+d x])^2\right)\right)\right) +$$

$$\frac{1}{d} \sqrt{a+b \operatorname{Cos}[c+d x]} \left(\frac{\operatorname{Sec}[c+d x] (-11 A b \operatorname{Sin}[c+d x] + 4 a B \operatorname{Sin}[c+d x])}{4 a^4} + \right.$$

$$\frac{2 \left(A b^4 \operatorname{Sin}[c+d x] - a b^3 B \operatorname{Sin}[c+d x] + a^2 b^2 C \operatorname{Sin}[c+d x]\right)}{3 a^3 \left(a^2-b^2\right) (a+b \operatorname{Cos}[c+d x])^2} +$$

$$\left(2 \left(13 a^2 A b^4 \operatorname{Sin}[c+d x] - 9 A b^6 \operatorname{Sin}[c+d x] - 10 a^3 b^3 B \operatorname{Sin}[c+d x] + 6 a b^5 B \operatorname{Sin}[c+d x] + 7 a^4 b^2 C \operatorname{Sin}[c+d x] - \right.\right.$$

$$\left.\left.\left. 3 a^2 b^4 C \operatorname{Sin}[c+d x]\right)\right) \Big/ \left(3 a^4 \left(a^2-b^2\right)^2 (a+b \operatorname{Cos}[c+d x])\right) + \frac{A \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{2 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b \operatorname{Cos}[c+d x])^4 \left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right)}{\operatorname{Cos}[c+d x]^{13/2}}, x, 9, 0\right\}$$

$$-\frac{2\left(28 a^3 A b+36 a A b^3+7 a^4 B+54 a^2 b^2 B+15 b^4 B+36 a^3 b C+60 a b^3 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{15 d}+$$
$$\frac{2\left(45 a^4 A+330 a^2 A b^2+77 A b^4+220 a^3 b B+308 a b^3 B+55 a^4 C+462 a^2 b^2 C+231 b^4 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{231 d}+$$
$$\frac{2\left(675 a^4 A+3199 a^2 A b^2+128 A b^4+2761 a^3 b B+2057 a b^3 B+825 a^4 C+4653 a^2 b^2 C\right) \text{Sin}[c+d x]}{3465 d \text{Cos}[c+d x]^{3/2}}+$$
$$\frac{2\left(28 a^3 A b+36 a A b^3+7 a^4 B+54 a^2 b^2 B+15 b^4 B+36 a^3 b C+60 a b^3 C\right) \text{Sin}[c+d x]}{15 d \sqrt{\text{Cos}[c+d x]}}+$$
$$\frac{2\left(1346 a^2 A b+192 A b^3+539 a^3 B+1353 a b^2 B+1782 a^2 b C\right)(a+b \text{Cos}[c+d x]) \text{Sin}[c+d x]}{3465 d \text{Cos}[c+d x]^{5/2}}+$$
$$\frac{2\left(27 a^2 A+16 A b^2+55 a b B+33 a^2 C\right)(a+b \text{Cos}[c+d x])^2 \text{Sin}[c+d x]}{231 d \text{Cos}[c+d x]^{7/2}}+$$
$$\frac{2(8 A b+11 a B)(a+b \text{Cos}[c+d x])^3 \text{Sin}[c+d x]}{99 d \text{Cos}[c+d x]^{9/2}}+\frac{2 A(a+b \text{Cos}[c+d x])^4 \text{Sin}[c+d x]}{11 d \text{Cos}[c+d x]^{11/2}}$$

$$\frac{1}{1155 d}\left(2\left(-2156 a^3 A b-2772 a A b^3-539 a^4 B-4158 a^2 b^2 B-1155 b^4 B-2772 a^3 b C-4620 a b^3 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]+\right.$$
$$\left.2\left(225 a^4 A+1650 a^2 A b^2+385 A b^4+1100 a^3 b B+1540 a b^3 B+275 a^4 C+2310 a^2 b^2 C+1155 b^4 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\right)+$$
$$\frac{1}{d}\sqrt{\text{Cos}[c+d x]}\left(\frac{2}{9} \text{Sec}[c+d x]^5\left(4 a^3 A b \text{Sin}[c+d x]+a^4 B \text{Sin}[c+d x]\right)+\right.$$
$$\frac{2}{77} \text{Sec}[c+d x]^4\left(9 a^4 A \text{Sin}[c+d x]+66 a^2 A b^2 \text{Sin}[c+d x]+44 a^3 b B \text{Sin}[c+d x]+11 a^4 C \text{Sin}[c+d x]\right)+\frac{2}{45} \text{Sec}[c+d x]^3$$
$$\left(28 a^3 A b \text{Sin}[c+d x]+36 a A b^3 \text{Sin}[c+d x]+7 a^4 B \text{Sin}[c+d x]+54 a^2 b^2 B \text{Sin}[c+d x]+36 a^3 b C \text{Sin}[c+d x]\right)+$$
$$\frac{2}{231} \text{Sec}[c+d x]^2\left(45 a^4 A \text{Sin}[c+d x]+330 a^2 A b^2 \text{Sin}[c+d x]+77 A b^4 \text{Sin}[c+d x]+\right.$$
$$\left.220 a^3 b B \text{Sin}[c+d x]+308 a b^3 B \text{Sin}[c+d x]+55 a^4 C \text{Sin}[c+d x]+462 a^2 b^2 C \text{Sin}[c+d x]\right)+$$
$$\frac{2}{15} \text{Sec}[c+d x]\left(28 a^3 A b \text{Sin}[c+d x]+36 a A b^3 \text{Sin}[c+d x]+7 a^4 B \text{Sin}[c+d x]+54 a^2 b^2 B \text{Sin}[c+d x]+\right.$$
$$\left.\left.15 b^4 B \text{Sin}[c+d x]+36 a^3 b C \text{Sin}[c+d x]+60 a b^3 C \text{Sin}[c+d x]\right)+\frac{2}{11} a^4 A \text{Sec}[c+d x]^5 \text{Tan}[c+d x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{5/2}\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{a+b \text{Cos}[c+d x]}, x, 8, 0\right\}$$

$$-\frac{2\left(5 a A b^2-5 a^2 b B-3 b^3 B+5 a^3 C+3 a b^2 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{5 b^4 d}+$$
$$\frac{2\left(21 a^2 A b^2+7 A b^4-21 a^3 b B-7 a b^3 B+21 a^4 C+7 a^2 b^2 C+5 b^4 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{21 b^5 d}-$$
$$\frac{2 a^3\left(A b^2-a b B+a^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{b^5(a+b) d}+\frac{2\left(7 A b^2-7 a b B+7 a^2 C+5 b^2 C\right)\sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{21 b^3 d}+$$
$$\frac{2(b B-a C) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{5 b^2 d}+\frac{2 C \text{Cos}[c+d x]^{5/2} \text{Sin}[c+d x]}{7 b d}$$

$$\frac{1}{210\,b^3\,d}\left(-\frac{2\left(-35\,a^2\,b\,B-63\,b^3\,B+35\,a^3\,C+a\,b^2\,(35\,A+13\,C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{4\left(35\,A\,b^2+28\,a\,b\,B-28\,a^2\,C+25\,b^2\,C\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$2\sqrt{\text{Cos}[c+d\,x]}\,\left(70\,A\,b^2-70\,a\,b\,B+70\,a^2\,C+65\,b^2\,C+42\,b\,(b\,B-a\,C)\,\text{Cos}[c+d\,x]+15\,b^2\,C\,\text{Cos}[2\,(c+d\,x)]\right)\text{Sin}[c+d\,x]-$$

$$\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}42\left(-5\,a^2\,b\,B-3\,b^3\,B+5\,a^3\,C+a\,b^2\,(5\,A+3\,C)\right)$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+\right.$$

$$\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]\right)\text{Sin}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,7,\,0\right\}$$

$$\frac{2\left(5\,A\,b^2-5\,a\,b\,B+5\,a^2\,C+3\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{5\,b^3\,d}-$$

$$\frac{2\left(3\,a\,A\,b^2-3\,a^2\,b\,B-b^3\,B+3\,a^3\,C+a\,b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^4\,d}+\frac{2\,a^2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^4\,(a+b)\,d}+$$

$$\frac{2\,(b\,B-a\,C)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b^2\,d}+\frac{2\,C\,\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b\,d}$$

$$\frac{1}{30\,b^2\,d}\left(\frac{2\left(15\,A\,b^2-5\,a\,b\,B+5\,a^2\,C+9\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{4\,(5\,b\,B+4\,a\,C)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$

$$4\sqrt{\text{Cos}[c+d\,x]}\,(5\,b\,B-5\,a\,C+3\,b\,C\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]+\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}6\left(5\,A\,b^2-5\,a\,b\,B+5\,a^2\,C+3\,b^2\,C\right)$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+\right.$$

$$\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]\right)\text{Sin}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{a+b\,\text{Cos}[c+d\,x]},\,x,\,6,\,0\right\}$$

$$\frac{2\,(b\,B-a\,C)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{b^2\,d}+\frac{2\left(3\,A\,b^2-3\,a\,b\,B+3\,a^2\,C+b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,b^3\,d}-$$

$$\frac{2\,a\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{b^3\,(a+b)\,d}+\frac{2\,C\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,b\,d}$$

$$\frac{1}{6\,b\,d}\left(-\frac{2\,(-3\,b\,B+a\,C)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{4\,(3\,A+C)\,\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+4\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]-\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\,6\,(b\,B-a\,C)\,\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])},\,x,\,7,\,0\right\}$$

$$\frac{2\,(A\,b-a\,B)\,\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,d}+\frac{2\,A\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{3\,a\,d}+\frac{2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,(a+b)\,d}+\frac{2\,A\,\text{Sin}[c+d\,x]}{3\,a\,d\,\text{Cos}[c+d\,x]^{3/2}}-\frac{2\,(A\,b-a\,B)\,\text{Sin}[c+d\,x]}{a^2\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{6\,a^2\,d}\left(\frac{2\,\left(9\,A\,b^2-9\,a\,b\,B+2\,a^2\,(A+3\,C)\right)\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\frac{\left(8\,a\,A\,b-6\,a^2\,B\right)\,\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}+\frac{4\,(a\,A+(-3\,A\,b+3\,a\,B)\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{\text{Cos}[c+d\,x]^{3/2}}-\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}\,6\,(A\,b-a\,B)\,\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(-2\,a^2+b^2\right)\,\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\,\text{Sin}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{7/2}\,(a+b\,\text{Cos}[c+d\,x])},\,x,\,8,\,0\right\}$$

$$-\frac{2\left(3a^2A+5Ab^2-5abB+5a^2C\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{5a^3d}-\frac{2(Ab-aB)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{3a^2d}-\frac{2b\left(Ab^2-abB+a^2C\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^3(a+b)d}+\frac{2A\,\text{Sin}[c+dx]}{5ad\,\text{Cos}[c+dx]^{5/2}}-\frac{2(Ab-aB)\,\text{Sin}[c+dx]}{3a^2d\,\text{Cos}[c+dx]^{3/2}}+\frac{2\left(3a^2A+5Ab^2-5abB+5a^2C\right)\text{Sin}[c+dx]}{5a^3d\sqrt{\text{Cos}[c+dx]}}$$

$$-\frac{1}{30a^3d}\left(\frac{2\left(45Ab^3-10a^3B-45ab^2B+a^2b(19A+45C)\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\frac{4a\left(20Ab^2-20abB+3a^2(3A+5C)\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{b(a+b)}-\frac{4\left(3\left(5Ab^2-5abB+a^2(3A+5C)\right)+5a(-Ab+aB)\,\text{Sec}[c+dx]+3a^2A\,\text{Sec}[c+dx]^2\right)\text{Sin}[c+dx]}{\sqrt{\text{Cos}[c+dx]}}+\frac{1}{ab\sqrt{\text{Sin}[c+dx]^2}}6\left(5Ab^2-5abB+a^2(3A+5C)\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{\text{Cos}[c+dx]^{9/2}(a+b\,\text{Cos}[c+dx])},x,9,0\right\}$$

$$\frac{2\left(3a^2Ab+5Ab^3-3a^3B-5ab^2B+5a^2bC\right)\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]}{5a^4d}+\frac{2\left(5a^2A+7Ab^2-7abB+7a^2C\right)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]}{21a^3d}+\frac{2b^2\left(Ab^2-abB+a^2C\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a^4(a+b)d}+\frac{2A\,\text{Sin}[c+dx]}{7ad\,\text{Cos}[c+dx]^{7/2}}-\frac{2(Ab-aB)\,\text{Sin}[c+dx]}{5a^2d\,\text{Cos}[c+dx]^{5/2}}+\frac{2\left(5a^2A+7Ab^2-7abB+7a^2C\right)\text{Sin}[c+dx]}{21a^3d\,\text{Cos}[c+dx]^{3/2}}-\frac{2\left(3a^2Ab+5Ab^3-3a^3B-5ab^2B+5a^2bC\right)\text{Sin}[c+dx]}{5a^4d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{210a^4d}\left(\frac{2\left(315Ab^4-133a^3bB-315ab^3B+10a^4(5A+7C)+7a^2b^2(19A+45C)\right)\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]}{a+b}+\frac{4a\left(140Ab^3-63a^3B-140ab^2B+4a^2b(22A+35C)\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]-a\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\right)}{b(a+b)}+\frac{1}{\sqrt{\text{Cos}[c+dx]}}4\left(21\left(-5Ab^3+3a^3B+5ab^2B-a^2b(3A+5C)\right)+5a\left(7Ab^2-7abB+a^2(5A+7C)\right)\text{Sec}[c+dx]+21a^2(-Ab+aB)\,\text{Sec}[c+dx]^2+15a^3A\,\text{Sec}[c+dx]^3\right)\text{Sin}[c+dx]-\frac{1}{ab\sqrt{\text{Sin}[c+dx]^2}}42\left(-5Ab^3+3a^3B+5ab^2B-a^2b(3A+5C)\right)\left(-2ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+2a(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]+\left(2a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+dx]}\right],-1\right]\right)\text{Sin}[c+dx]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^2},\ x,\ 8,\ 0\right\}$$

$$\frac{\left(15\,a^2\,A\,b^2-10\,A\,b^4-25\,a^3\,b\,B+20\,a\,b^3\,B+35\,a^4\,C-24\,a^2\,b^2\,C-6\,b^4\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{5\,b^4\,\left(a^2-b^2\right)\,d}-$$

$$\frac{\left(9\,a^3\,A\,b^2-12\,a\,A\,b^4-15\,a^4\,b\,B+16\,a^2\,b^3\,B+2\,b^5\,B+21\,a^5\,C-20\,a^3\,b^2\,C-4\,a\,b^4\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,b^5\,\left(a^2-b^2\right)\,d}+$$

$$\frac{a^2\,\left(3\,a^2\,A\,b^2-5\,A\,b^4-5\,a^3\,b\,B+7\,a\,b^3\,B+7\,a^4\,C-9\,a^2\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{(a-b)\,b^5\,(a+b)^2\,d}-$$

$$\frac{\left(3\,a\,A\,b^2-5\,a^2\,b\,B+2\,b^3\,B+7\,a^3\,C-4\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{3\,b^3\,\left(a^2-b^2\right)\,d}+$$

$$\frac{\left(5\,A\,b^2-5\,a\,b\,B+7\,a^2\,C-2\,b^2\,C\right)\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{5\,b^2\,\left(a^2-b^2\right)\,d}-\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Cos}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{60\,b^3\,d}\left(\frac{1}{(a-b)\,(a+b)}\left(\frac{2\,\left(-25\,a^3\,b\,B+40\,a\,b^3\,B+a^2\,b^2\,(15\,A-32\,C)+35\,a^4\,C-6\,b^4\,(5\,A+3\,C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{a+b}+\right.\right.$$

$$\frac{8\,\left(-10\,a^2\,b\,B-5\,b^3\,B+14\,a^3\,C+a\,b^2\,(15\,A+C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\right)}{a+b}+$$

$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}6\,\left(-25\,a^3\,b\,B+20\,a\,b^3\,B+3\,a^2\,b^2\,(5\,A-8\,C)+35\,a^4\,C-2\,b^4\,(5\,A+3\,C)\right)$$

$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]+\right.$$

$$\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\ -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\ -1\right]\right)\text{Sin}[c+d\,x]\Bigg)+$$

$$\left.\left.4\,\sqrt{\text{Cos}[c+d\,x]}\left(10\,(b\,B-2\,a\,C)\,\text{Sin}[c+d\,x]-\frac{15\,a^2\,\left(A\,b^2+a\,(-b\,B+a\,C)\right)\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+3\,b\,C\,\text{Sin}[2\,(c+d\,x)]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^2},\ x,\ 7,\ 0\right\}$$

$$-\frac{\left(a\,A\,b^2-3\,a^2\,b\,B+2\,b^3\,B+5\,a^3\,C-4\,a\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{b^3\,\left(a^2-b^2\right)\,d}+$$

$$\frac{\left(3\,a^2\,A\,b^2-6\,A\,b^4-9\,a^3\,b\,B+12\,a\,b^3\,B+15\,a^4\,C-16\,a^2\,b^2\,C-2\,b^4\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]}{3\,b^4\,\left(a^2-b^2\right)\,d}-$$

$$\frac{a\,\left(a^2\,A\,b^2-3\,A\,b^4-3\,a^3\,b\,B+5\,a\,b^3\,B+5\,a^4\,C-7\,a^2\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]}{(a-b)\,b^4\,(a+b)^2\,d}+$$

$$\frac{\left(3\,A\,b^2-3\,a\,b\,B+5\,a^2\,C-2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{3\,b^2\,\left(a^2-b^2\right)\,d}-\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{12 b^2 d}\left(4\sqrt{\text{Cos}[c+d x]}\left(2 C+\frac{3 a\left(A b^2+a(-b B+a C)\right)}{\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}\right)\text{Sin}[c+d x]-\right.$$

$$\frac{1}{(a-b)(a+b)}\left(\frac{2\left(-3 a^2 b B+6 b^3 B+5 a^3 C-a b^2(3 A+8 C)\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{8\left(3 A b^2-3 a b B+2 a^2 C+b^2 C\right)\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}6\left(-3 a^2 b B+2 b^3 B+a b^2(A-4 C)+5 a^3 C\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d x]}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{(a+b\,\text{Cos}[c+d x])^2},x,6,0\right\}$$

$$\frac{\left(A b^2-a b B+3 a^2 C-2 b^2 C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{b^2\left(a^2-b^2\right)d}+\frac{\left(a A b^2+a^2 b B-2 b^3 B-3 a^3 C+4 a b^2 C\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b^3\left(a^2-b^2\right)d}-$$

$$\frac{\left(a^2 A b^2+A b^4+a^3 b B-3 a b^3 B-3 a^4 C+5 a^2 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{(a-b) b^3 (a+b)^2 d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])}$$

$$-\frac{1}{4 b d}\left(\frac{4\left(A b^2+a(-b B+a C)\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}+\right.$$

$$\frac{1}{(-a+b)(a+b)}\left(\frac{2\left(-A b^2+a b B+a^2 C-2 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{8(-b B+a(A+C))\left((a+b)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)}{a+b}+$$

$$\frac{1}{a b^2\sqrt{\text{Sin}[c+d x]^2}}2\left(A b^2-a b B+3 a^2 C-2 b^2 C\right)\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b)\right.$$

$$\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{\sqrt{\text{Cos}[c+d x]}\,(a+b\,\text{Cos}[c+d x])^2},x,6,0\right\}$$

$$-\frac{\left(A b^2-a b B+a^2 C\right)\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a b\left(a^2-b^2\right)d}-\frac{\left(A b^2-a b B-a^2 C+2 b^2 C\right)\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{b^2\left(a^2-b^2\right)d}+$$

$$\frac{\left(3 a^2 A b^2-A b^4-a^3 b B-a b^3 B-a^4 C+3 a^2 b^2 C\right)\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a(a-b) b^2 (a+b)^2 d}+\frac{\left(A b^2-a b B+a^2 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{4\,a\,d}\left(\frac{4\left(A\,b^2+a\,(-b\,B+a\,C)\right)\sqrt{\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+\right.$$

$$\frac{1}{(a-b)\,(a+b)}\left(\frac{2\left(-3\,A\,b^2-a\,b\,B+a^2\,(4\,A+C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\right.$$

$$\frac{8\,a\,(A\,b-a\,B+b\,C)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{b\,(a+b)}+\frac{1}{a\,b^2\sqrt{\text{Sin}[c+d\,x]^2}}$$

$$2\left(A\,b^2+a\,(-b\,B+a\,C)\right)\left(2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]-2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left.\left(-2\,a^2+b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,7,\,0\right\}$$

$$-\frac{\left(2\,a^2\,A-3\,A\,b^2+a\,b\,B-a^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,\left(a^2-b^2\right)\,d}+\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{a\,b\,\left(a^2-b^2\right)\,d}-$$

$$\frac{\left(5\,a^2\,A\,b^2-3\,A\,b^4-3\,a^3\,b\,B+a\,b^3\,B+a^4\,C+a^2\,b^2\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a^2\,(a-b)\,b\,(a+b)^2\,d}+$$

$$\frac{\left(2\,a^2\,A-3\,A\,b^2+a\,b\,B-a^2\,C\right)\text{Sin}[c+d\,x]}{a^2\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Sin}[c+d\,x]}{a\,\left(a^2-b^2\right)\,d\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{4\,a^2\,d}\left(\frac{4\left(2\,a\,A\,\left(a^2-b^2\right)+b\,\left(-3\,A\,b^2+a\,b\,B+a^2\,(2\,A-C)\right)\text{Cos}[c+d\,x]\right)\text{Sin}[c+d\,x]}{\left(a^2-b^2\right)\,\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])}-\right.$$

$$\frac{1}{(-a+b)\,(a+b)}\left(\frac{2\left(9\,A\,b^3+4\,a^3\,B-3\,a\,b^2\,B-a^2\,b\,(10\,A+C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\right.$$

$$\frac{8\,a\,\left(-2\,A\,b^2+a\,b\,B+a^2\,(A-C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{b\,(a+b)}-$$

$$\frac{1}{a\,b\,\sqrt{\text{Sin}[c+d\,x]^2}}2\left(-3\,A\,b^2+a\,b\,B+a^2\,(2\,A-C)\right)\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\right.$$

$$\left.\left.\left.\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{5/2}\,(a+b\,\text{Cos}[c+d\,x])^2},\,x,\,8,\,0\right\}$$

$$\frac{\left(4 a^2 A b-5 A b^3-2 a^3 B+3 a b^2 B-a^2 b C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{a^3\left(a^2-b^2\right) d}+\frac{\left(2 a^2 A-5 A b^2+3 a b B-3 a^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{3 a^2\left(a^2-b^2\right) d}+$$

$$\frac{\left(7 a^2 A b^2-5 A b^4-5 a^3 b B+3 a b^3 B+3 a^4 C-a^2 b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a^3(a-b)(a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-5 A b^2+3 a b B-3 a^2 C\right) \text{Sin}[c+d x]}{3 a^2\left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}}-\frac{\left(4 a^2 A b-5 A b^3-2 a^3 B+3 a b^2 B-a^2 b C\right) \text{Sin}[c+d x]}{a^3\left(a^2-b^2\right) d \sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{a\left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{12 a^3(a-b)(a+b) d}\left(\frac{2\left(4 a^4 A+44 a^2 A b^2-45 A b^4-30 a^3 b B+27 a b^3 B+12 a^4 C-9 a^2 b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{\left(28 a^3 A b-40 a A b^3-12 a^4 B+24 a^2 b^2 B-12 a^3 b C\right)\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}+$$

$$\left(2\left(12 a^2 A b^2-15 A b^4-6 a^3 b B+9 a b^3 B-3 a^2 b^2 C\right) \text{Cos}[2(c+d x)]\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)$$

$$\left.\left.\text{Sin}[c+d x]\right) \Big/ \left(a b^2 \sqrt{1-\text{Cos}[c+d x]^2}\left(-1+2 \text{Cos}[c+d x]^2\right)\right)\right)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\left(\frac{2 \text{Sec}[c+d x](-2 A b \text{Sin}[c+d x]+a B \text{Sin}[c+d x])}{a^3}+\frac{A b^4 \text{Sin}[c+d x]-a b^3 B \text{Sin}[c+d x]+a^2 b^2 C \text{Sin}[c+d x]}{a^3\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}+\frac{2 A \text{Sec}[c+d x] \text{Tan}[c+d x]}{3 a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{7/2}\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^3}, x, 9, 0\right\}$$

$$\frac{1}{20 b^5 \left(a^2-b^2\right)^2 d}\left(75 a^4 A b^2-145 a^2 A b^4+40 A b^6-175 a^5 b B+325 a^3 b^3 B-120 a b^5 B+315 a^6 C-561 a^4 b^2 C+192 a^2 b^4 C+24 b^6 C\right)$$

$$\text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]-\frac{1}{12 b^6 \left(a^2-b^2\right)^2 d}$$

$$\left(45 a^5 A b^2-99 a^3 A b^4+72 a A b^6-105 a^6 b B+223 a^4 b^3 B-128 a^2 b^5 B-8 b^7 B+189 a^7 C-387 a^5 b^2 C+192 a^3 b^4 C+24 a b^6 C\right)$$

$$\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]+\frac{1}{4 (a-b)^2 b^6 (a+b)^3 d}$$

$$a^2\left(15 a^4 A b^2-38 a^2 A b^4+35 A b^6-35 a^5 b B+86 a^3 b^3 B-63 a b^5 B+63 a^6 C-150 a^4 b^2 C+99 a^2 b^4 C\right)$$

$$\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]-$$

$$\frac{\left(15 a^3 A b^2-33 a A b^4-35 a^4 b B+61 a^2 b^3 B-8 b^5 B+63 a^5 C-105 a^3 b^2 C+24 a b^4 C\right)\sqrt{\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{12 b^4 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(15 a^2 A b^2-45 A b^4-35 a^3 b B+65 a b^3 B+63 a^4 C-101 a^2 b^2 C+8 b^4 C\right)\text{Cos}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{20 b^3 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right)\text{Cos}[c+d x]^{7/2}\,\text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b\,\text{Cos}[c+d x])^2}-$$

$$\frac{\left(a^2 A b^2-7 A b^4-5 a^3 b B+11 a b^3 B+9 a^4 C-15 a^2 b^2 C\right)\text{Cos}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{4 b^2 \left(a^2-b^2\right)^2 d (a+b\,\text{Cos}[c+d x])}$$

$$\frac{1}{240 (a-b)^2 b^4 (a+b)^2 d}$$

$$\left(\frac{1}{a+b}2\left(75 a^4 A b^2-105 a^2 A b^4+120 A b^6-175 a^5 b B+365 a^3 b^3 B-280 a b^5 B+315 a^6 C-633 a^4 b^2 C+336 a^2 b^4 C+72 b^6 C\right)\right.$$

$$\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]+\frac{1}{b}$$

$$\left(120 a^3 A b^3-480 a A b^5-280 a^4 b^2 B+560 a^2 b^4 B+80 b^6 B+504 a^5 b C-768 a^3 b^3 C-96 a b^5 C\right)$$

$$\left(2\,\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a\,\text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)+\frac{1}{a b^2\sqrt{1-\text{Cos}[c+d x]^2}\left(-1+2\,\text{Cos}[c+d x]^2\right)}$$

$$2\left(225 a^4 A b^2-435 a^2 A b^4+120 A b^6-525 a^5 b B+975 a^3 b^3 B-360 a b^5 B+945 a^6 C-1683 a^4 b^2 C+576 a^2 b^4 C+72 b^6 C\right)$$

$$\text{Cos}[2(c+d x)]\left(-2 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left(2 a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right)\text{Sin}[c+d x]\Bigg)+\frac{1}{d}$$

$$\sqrt{\text{Cos}[c+d x]}\left(\frac{2(b B-3 a C)\,\text{Sin}[c+d x]}{3 b^4}+\frac{a^3 A b^2\,\text{Sin}[c+d x]-a^4 b B\,\text{Sin}[c+d x]+a^5 C\,\text{Sin}[c+d x]}{2 b^4\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])^2}+\right.$$

$$\left(-7 a^4 A b^2\,\text{Sin}[c+d x]+13 a^2 A b^4\,\text{Sin}[c+d x]+11 a^5 b B\,\text{Sin}[c+d x]-17 a^3 b^3 B\,\text{Sin}[c+d x]-\right.$$

$$\left.\left.15 a^6 C\,\text{Sin}[c+d x]+21 a^4 b^2 C\,\text{Sin}[c+d x]\right)\Big/\left(4 b^4\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d x])\right)+\frac{C\,\text{Sin}[2(c+d x)]}{5 b^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{5/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{(a+b\,\text{Cos}[c+d x])^3},x,8,0\right\}$$

$$-\frac{\left(3 a^3 A b^2-9 a A b^4-15 a^4 b B+29 a^2 b^3 B-8 b^5 B+35 a^5 C-65 a^3 b^2 C+24 a b^4 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^4 \left(a^2-b^2\right)^2 d}+\frac{1}{12 b^5 \left(a^2-b^2\right)^2 d}$$

$$\left(9 a^4 A b^2-15 a^2 A b^4+24 A b^6-45 a^5 b B+99 a^3 b^3 B-72 a b^5 B+105 a^6 C-223 a^4 b^2 C+128 a^2 b^4 C+8 b^6 C\right)$$

$$\text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-$$

$$\frac{a \left(3 a^4 A b^2-6 a^2 A b^4+15 A b^6-15 a^5 b B+38 a^3 b^3 B-35 a b^5 B+35 a^6 C-86 a^4 b^2 C+63 a^2 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 (a-b)^2 b^5 (a+b)^3 d}+$$

$$\frac{\left(3 a^2 A b^2-21 A b^4-15 a^3 b B+33 a b^3 B+35 a^4 C-61 a^2 b^2 C+8 b^4 C\right) \sqrt{\text{Cos}[c+d x]}\ \text{Sin}[c+d x]}{12 b^3 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Cos}[c+d x]^{5/2} \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{\left(a^2 A b^2+5 A b^4+3 a^3 b B-9 a b^3 B-7 a^4 C+13 a^2 b^2 C\right) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{4 b^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{48 b^3 d}\left(\frac{1}{\left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])^2} 4 \sqrt{\text{Cos}[c+d x]}\ \left(3 a^4 A b^2-21 a^2 A b^4-15 a^5 b B+33 a^3 b^3 B+35 a^6 C-\right.\right.$$

$$57 a^4 b^2 C+4 b^6 C+a b \left(-21 a^3 b B+39 a b^3 B+a^2 b^2 (9 A-83 C)+49 a^4 C+b^4 (-27 A+16 C)\right) \text{Cos}[c+d x]+$$

$$\left.4 \left(-a^2 b+b^3\right)^2 C \text{Cos}[2 (c+d x)]\right) \text{Sin}[c+d x]-\frac{1}{(a-b)^2 (a+b)^2}$$

$$\left(\frac{2 \left(-15 a^4 b B+21 a^2 b^3 B-24 b^5 B+a^3 b^2 (3 A-73 C)+35 a^5 C+a b^4 (15 A+56 C)\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}-\right.$$

$$\frac{1}{a+b} 16 \left(3 a^3 b B-12 a b^3 B-7 a^4 C+2 b^4 (3 A+C)+a^2 b^2 (3 A+14 C)\right)$$

$$\left((a+b) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\right)+$$

$$\frac{1}{a b^2 \sqrt{\text{Sin}[c+d x]^2}} 6 \left(-15 a^4 b B+29 a^2 b^3 B-8 b^5 B+a^3 b^2 (3 A-65 C)+35 a^5 C+3 a b^4 (-3 A+8 C)\right)$$

$$\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d x]^{3/2} \left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{(a+b \text{Cos}[c+d x])^3}, x, 7, 0\right\}$$

$$-\frac{\left(a^2 A b^2+5 A b^4+3 a^3 b B-9 a b^3 B-15 a^4 C+29 a^2 b^2 C-8 b^4 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 b^3 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(a^3 A b^2-7 a A b^4+3 a^4 b B-5 a^2 b^3 B+8 b^5 B-15 a^5 C+33 a^3 b^2 C-24 a b^4 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 b^4 \left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(a^4 A b^2-10 a^2 A b^4-3 A b^6+3 a^5 b B-6 a^3 b^3 B+15 a b^5 B-15 a^6 C+38 a^4 b^2 C-35 a^2 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 (a-b)^2 b^4 (a+b)^3 d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2}+\frac{\left(3 a^2 A b^2+3 A b^4+a^3 b B-7 a b^3 B-5 a^4 C+11 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]}\ \text{Sin}[c+d x]}{4 b^2 \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x])}$$

$$\frac{1}{16\,(a-b)^2\,b^2\,(a+b)^2\,d}\left(\frac{2\left(5\,a^2\,A\,b^2+A\,b^4-a^3\,b\,B-5\,a\,b^3\,B+5\,a^4\,C-7\,a^2\,b^2\,C+8\,b^4\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}+\right.$$

$$\frac{\left(-24\,a\,A\,b^3+8\,a^2\,b^2\,B+16\,b^4\,B+8\,a^3\,b\,C-32\,a\,b^3\,C\right)\left(2\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-\frac{2\,a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}\right)}{b}+$$

$$\frac{1}{a\,b^2\,\sqrt{1-\text{Cos}[c+d\,x]^2}\,\left(-1+2\,\text{Cos}[c+d\,x]^2\right)}2\left(-a^2\,A\,b^2-5\,A\,b^4-3\,a^3\,b\,B+9\,a\,b^3\,B+15\,a^4\,C-29\,a^2\,b^2\,C+8\,b^4\,C\right)$$

$$\text{Cos}[2\,(c+d\,x)]\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]+\right.$$

$$\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],\,-1\right]\right)\text{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\left(\frac{a\,A\,b^2\,\text{Sin}[c+d\,x]-a^2\,b\,B\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x]}{2\,b^2\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\left.\frac{a^2\,A\,b^2\,\text{Sin}[c+d\,x]+5\,A\,b^4\,\text{Sin}[c+d\,x]+3\,a^3\,b\,B\,\text{Sin}[c+d\,x]-9\,a\,b^3\,B\,\text{Sin}[c+d\,x]-7\,a^4\,C\,\text{Sin}[c+d\,x]+13\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]}{4\,b^2\,\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$

$$\frac{\left(5\,a^2\,A\,b^2+A\,b^4-a^3\,b\,B-5\,a\,b^3\,B-3\,a^4\,C+9\,a^2\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a\,b^2\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(3\,a^2\,A\,b^2+3\,A\,b^4+a^3\,b\,B-7\,a\,b^3\,B+3\,a^4\,C-5\,a^2\,b^2\,C+8\,b^4\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,b^3\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{\left(3\,a^4\,A\,b^2+10\,a^2\,A\,b^4-A\,b^6+a^5\,b\,B-10\,a^3\,b^3\,B-3\,a\,b^5\,B+3\,a^6\,C-6\,a^4\,b^2\,C+15\,a^2\,b^4\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a\,(a-b)^2\,b^3\,(a+b)^3\,d}-$$

$$\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}-\frac{\left(5\,a^2\,A\,b^2+A\,b^4-a^3\,b\,B-5\,a\,b^3\,B-3\,a^4\,C+9\,a^2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a\,b\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{8\,a\,b\,d}\left(\frac{1}{\left(a^2-b^2\right)^2\,(a+b\,\text{Cos}[c+d\,x])^2}2\,\sqrt{\text{Cos}[c+d\,x]}\right.$$
$$\left(a\left(A\,b^4+3\,a^3\,b\,B+3\,a\,b^3\,B+a^4\,C-7\,a^2\,b^2\,(A+C)\right)+b\left(-A\,b^4+a^3\,b\,B+5\,a\,b^3\,B+3\,a^4\,C-a^2\,b^2\,(5\,A+9\,C)\right)\text{Cos}[c+d\,x]\right)$$
$$\text{Sin}[c+d\,x]-\frac{1}{(a-b)^2\,(a+b)^2}\left(\frac{\left(-3\,A\,b^4-5\,a^3\,b\,B-a\,b^3\,B+a^4\,C+a^2\,b^2\,(9\,A+5\,C)\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{a+b}-\right.$$
$$\frac{8\,a\left(-3\,a\,b\,B+a^2\,(2\,A+C)+b^2\,(A+2\,C)\right)\left((a+b)\,\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]-a\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\right)}{a+b}+$$
$$\frac{1}{a\,b^2\,\sqrt{\text{Sin}[c+d\,x]^2}}\left(-A\,b^4+a^3\,b\,B+5\,a\,b^3\,B+3\,a^4\,C-a^2\,b^2\,(5\,A+9\,C)\right)$$
$$\left(-2\,a\,b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+2\,a\,(a+b)\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]+\right.$$
$$\left.\left.\left(2\,a^2-b^2\right)\text{EllipticPi}\left[-\frac{b}{a},\,-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d\,x]}\right],-1\right]\right)\text{Sin}[c+d\,x]\right)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^3},\,x,\,7,\,0\right\}$$
$$-\frac{\left(9\,a^2\,A\,b^2-3\,A\,b^4-5\,a^3\,b\,B-a\,b^3\,B+a^4\,C+5\,a^2\,b^2\,C\right)\text{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,b\,\left(a^2-b^2\right)^2\,d}-$$
$$\frac{\left(7\,a^2\,A\,b^2-A\,b^4-3\,a^3\,b\,B-3\,a\,b^3\,B-a^4\,C+7\,a^2\,b^2\,C\right)\text{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a\,b^2\,\left(a^2-b^2\right)^2\,d}+$$
$$\frac{\left(15\,a^4\,A\,b^2-6\,a^2\,A\,b^4+3\,A\,b^6-3\,a^5\,b\,B-10\,a^3\,b^3\,B+a\,b^5\,B-a^6\,C+10\,a^4\,b^2\,C+3\,a^2\,b^4\,C\right)\text{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]}{4\,a^2\,(a-b)^2\,b^2\,(a+b)^3\,d}+$$
$$\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^2}+\frac{\left(9\,a^2\,A\,b^2-3\,A\,b^4-5\,a^3\,b\,B-a\,b^3\,B+a^4\,C+5\,a^2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\text{Cos}[c+d\,x])}$$

$$\frac{1}{16 a^2 (a-b)^2 (a+b)^2 d}\left(\frac{2\left(16 a^4 A-19 a^2 A b^2+9 A b^4-9 a^3 b B+3 a b^3 B+5 a^4 C+a^2 b^2 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\right.$$

$$\frac{\left(-32 a^3 A b+8 a A b^3+16 a^4 B+8 a^2 b^2 B-24 a^3 b C\right)\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)}{b}+$$

$$\frac{1}{a b^2 \sqrt{1-\text{Cos}[c+d x]^2}\left(-1+2 \text{Cos}[c+d x]^2\right)} 2\left(-9 a^2 A b^2+3 A b^4+5 a^3 b B+a b^3 B-a^4 C-5 a^2 b^2 C\right) \text{Cos}[2(c+d x)]$$

$$\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a(a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\right.$$

$$\left.\left.\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d x]}\left(\frac{A b^2 \text{Sin}[c+d x]-a b B \text{Sin}[c+d x]+a^2 C \text{Sin}[c+d x]}{2 a\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\right.$$

$$\left.\frac{9 a^2 A b^2 \text{Sin}[c+d x]-3 A b^4 \text{Sin}[c+d x]-5 a^3 b B \text{Sin}[c+d x]-a b^3 B \text{Sin}[c+d x]+a^4 C \text{Sin}[c+d x]+5 a^2 b^2 C \text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{3/2}(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B-5 a^4 C-a^2 b^2 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 a^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(11 a^2 A b^2-5 A b^4-7 a^3 b B+a b^3 B+3 a^4 C+3 a^2 b^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{4 a^2 b\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(35 a^4 A b^2-38 a^2 A b^4+15 A b^6-15 a^5 b B+6 a^3 b^3 B-3 a b^5 B+3 a^6 C+10 a^4 b^2 C-a^2 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 a^3(a-b)^2 b(a+b)^3 d}+$$

$$\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B-5 a^4 C-a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{2 a\left(a^2-b^2\right) d \sqrt{\text{Cos}[c+d x]}(a+b \text{Cos}[c+d x])^2}+\frac{\left(11 a^2 A b^2-5 A b^4-7 a^3 b B+a b^3 B+3 a^4 C+3 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}(a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{16 a^3 (a-b)^2 (a+b)^2 d}\left(\frac{2 \left(56 a^4 A b-95 a^2 A b^3+45 A b^5-16 a^5 B+19 a^3 b^2 B-9 a b^4 B+9 a^4 b C-3 a^2 b^3 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}+\frac{1}{b}\left(16 a^5 A-80 a^3 A b^2+40 a A b^4+32 a^4 b B-8 a^2 b^3 B-16 a^5 C-8 a^3 b^2 C\right)\left(2 \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]-\frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{a+b}\right)+\frac{1}{a b^2 \sqrt{1-\text{Cos}[c+d x]^2}\left(-1+2 \text{Cos}[c+d x]^2\right)} 2 \left(8 a^4 A b-29 a^2 A b^3+15 A b^5+9 a^3 b^2 B-3 a b^4 B-5 a^4 b C-a^2 b^3 C\right) \text{Cos}[2(c+d x)]\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]+\left(2 a^2-b^2\right) \text{EllipticPi}\left[-\frac{b}{a},-\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right],-1\right]\right) \text{Sin}[c+d x]\right)+\frac{1}{d}\sqrt{\text{Cos}[c+d x]}\left(\frac{-A b^3 \text{Sin}[c+d x]+a b^2 B \text{Sin}[c+d x]-a^2 b C \text{Sin}[c+d x]}{2 a^2 \left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\left(-13 a^2 A b^3 \text{Sin}[c+d x]+7 A b^5 \text{Sin}[c+d x]+9 a^3 b^2 B \text{Sin}[c+d x]-3 a b^4 B \text{Sin}[c+d x]-5 a^4 b C \text{Sin}[c+d x]-a^2 b^3 C \text{Sin}[c+d x]\right)\Big/\left(4 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])\right)+\frac{2 A \text{Tan}[c+d x]}{a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{5/2}(a+b \text{Cos}[c+d x])^3},x,9,0\right\}$$

$$\frac{\left(24 a^4 A b-65 a^2 A b^3+35 A b^5-8 a^5 B+29 a^3 b^2 B-15 a b^4 B-9 a^4 b C+3 a^2 b^3 C\right) \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]}{4 a^4 \left(a^2-b^2\right)^2 d}+\frac{\left(8 a^4 A-61 a^2 A b^2+35 A b^4+33 a^3 b B-15 a b^3 B-21 a^4 C+3 a^2 b^2 C\right) \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]}{12 a^3 \left(a^2-b^2\right)^2 d}+\frac{\left(63 a^4 A b^2-86 a^2 A b^4+35 A b^6-35 a^5 b B+38 a^3 b^3 B-15 a b^5 B+15 a^6 C-6 a^4 b^2 C+3 a^2 b^4 C\right) \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]}{4 a^4 (a-b)^2 (a+b)^3 d}+\frac{\left(8 a^4 A-61 a^2 A b^2+35 A b^4+33 a^3 b B-15 a b^3 B-21 a^4 C+3 a^2 b^2 C\right) \text{Sin}[c+d x]}{12 a^3 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2}}-\frac{\left(24 a^4 A b-65 a^2 A b^3+35 A b^5-8 a^5 B+29 a^3 b^2 B-15 a b^4 B-9 a^4 b C+3 a^2 b^3 C\right) \text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2 d \sqrt{\text{Cos}[c+d x]}}+\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d \text{Cos}[c+d x]^{3/2}(a+b \text{Cos}[c+d x])^2}+\frac{\left(13 a^2 A b^2-7 A b^4-9 a^3 b B+3 a b^3 B+5 a^4 C+a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d \text{Cos}[c+d x]^{3/2}(a+b \text{Cos}[c+d x])}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}$$

$$\left(\frac{1}{a+b} 2 \left(16 a^6 A + 328 a^4 A b^2 - 641 a^2 A b^4 + 315 A b^6 - 168 a^5 b B + 285 a^3 b^3 B - 135 a b^5 B + 48 a^6 C - 57 a^4 b^2 C + 27 a^2 b^4 C\right)\right.$$

$$\text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] + \frac{1}{b}$$

$$\left(160 a^5 A b - 512 a^3 A b^3 + 280 a A b^5 - 48 a^6 B + 240 a^4 b^2 B - 120 a^2 b^4 B - 96 a^5 b C + 24 a^3 b^3 C\right)$$

$$\left(2 \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] - \frac{2 a \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right]}{a+b}\right) + \frac{1}{a b^2 \sqrt{1-\text{Cos}[c+d x]^2} \left(-1+2 \text{Cos}[c+d x]^2\right)}$$

$$2 \left(72 a^4 A b^2 - 195 a^2 A b^4 + 105 A b^6 - 24 a^5 b B + 87 a^3 b^3 B - 45 a b^5 B - 27 a^4 b^2 C + 9 a^2 b^4 C\right) \text{Cos}[2 (c+d x)]$$

$$\left(-2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right] + 2 a (a+b) \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right] + \right.$$

$$\left.\left(2 a^2 - b^2\right) \text{EllipticPi}\left[-\frac{b}{a}, -\text{ArcSin}\left[\sqrt{\text{Cos}[c+d x]}\right], -1\right]\right) \text{Sin}[c+d x]\Bigg) + \frac{1}{d}$$

$$\sqrt{\text{Cos}[c+d x]} \left(\frac{2 \text{Sec}[c+d x] (-3 A b \text{Sin}[c+d x] + a B \text{Sin}[c+d x])}{a^4} + \frac{A b^4 \text{Sin}[c+d x] - a b^3 B \text{Sin}[c+d x] + a^2 b^2 C \text{Sin}[c+d x]}{2 a^3 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2} + \right.$$

$$\left(17 a^2 A b^4 \text{Sin}[c+d x] - 11 A b^6 \text{Sin}[c+d x] - 13 a^3 b^3 B \text{Sin}[c+d x] + 7 a b^5 B \text{Sin}[c+d x] + 9 a^4 b^2 C \text{Sin}[c+d x] - \right.$$

$$\left.\left.3 a^2 b^4 C \text{Sin}[c+d x]\right) \Big/ \left(4 a^4 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])\right) + \frac{2 A \text{Sec}[c+d x] \text{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \left(A + B \text{Cos}[c+d x] + C \text{Cos}[c+d x]^2\right), x, 8, 0\right\}$$

$$\frac{(a+b) \left(24 A b^2 + 6 a b B - 3 a^2 C + 16 b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{24 b^2 d \sqrt{a+b \text{Cos}[c+d x]}} -$$

$$\frac{\left(24 a A b - 6 a b B + 12 b^2 B - a^2 C + 14 a b C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{12 b d \sqrt{a+b \text{Cos}[c+d x]}} +$$

$$\frac{\left(8 a A b^2 - 2 a^2 b B + 8 b^3 B + a^3 C + 4 a b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b) (1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], -\frac{a-b}{a+b}\right]}{4 b^2 d \sqrt{a+b \text{Cos}[c+d x]}}$$

$$+ \frac{(6 b B + a C) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{12 b d} + \frac{C \text{Cos}[c+d x]^{3/2} \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 d} +$$

$$\frac{\left(24 A b^2 + 6 a b B - 3 a^2 C + 16 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2} (c+d x)\right]}{24 b^2 d}$$

$$\frac{1}{48\,b\,d}\left(-\left(4\,a\left(24\,A\,b^2+18\,a\,b\,B-a^2\,C+16\,b^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(48\,a\,A\,b+24\,b^2\,B+28\,a\,b\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(24\,A\,b^2+6\,a\,b\,B-3\,a^2\,C+16\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{(6\,b\,B+a\,C)\,\mathrm{Sin}[c+d\,x]}{12\,b}+\frac{1}{6}\,C\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\;x,\;7,\;0\right\}$$

$$\frac{(a+b)\,(4\,b\,B+a\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{(4\,a\,A-4\,A\,b-4\,a\,B+a\,C-2\,b\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(8\,A\,b^2+4\,a\,b\,B-a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{(4\,b\,B+a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d}$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(8\,a\,A+4\,b\,B+3\,a\,C)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,(8\,A\,b+8\,a\,B+4\,b\,C)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(4\,b\,B+a\,C)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/\left(b\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{3/2}},\,x,\,7,\,0\right\}$$

$$-\frac{(a+b)\,(2A-C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A+A\,b+a\,B-b\,B-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,b\,B+a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}-\frac{(2\,A-C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d}$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,d}\left(-\left(4\,a\,(2\,a\,B+b\,C)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(-2\,a\,A+2\,b\,B+2\,a\,C)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(-2\,A\,b+b\,C)\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{\text{Cos}[c+d\,x]^{5/2}},\,x,\,7,\,0\right\}$$

$$-\frac{2\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(a\,A+A\,b+3\,a\,B+3\,b\,B+3\,a\,C-3\,b\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,b\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}+\frac{2\,(A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{1}{3\,a\,d}\left(-\left(4\,a\left(a^2\,A-A\,b^2+3\,a^2\,C\right)\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\left(-a\,A\,b-3\,a^2\,B+3\,a\,b\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(-Ab^2-3abB\right)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\left(\frac{2\,\mathrm{Sec}[c+dx]\,(A\,b\,\mathrm{Sin}[c+dx]+3\,a\,B\,\mathrm{Sin}[c+dx])}{3a}+\frac{2}{3}A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right),\ x,\ 9,\ 0\right\}$$

$$\frac{1}{192\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(240\,a\,A\,b^2+24\,a^2\,b\,B+128\,b^3\,B-9\,a^3\,C+156\,a\,b^2\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]-$$

$$\frac{1}{96\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(192\,a^2\,A\,b-48\,a\,A\,b^2+96\,A\,b^3-56\,a^2\,b\,B+208\,a\,b^2\,B-3\,a^3\,C+114\,a^2\,b\,C-36\,a\,b^2\,C+72\,b^3\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{1}{32\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(48\,a^2\,A\,b^2+64\,A\,b^4-8\,a^3\,b\,B+96\,a\,b^3\,B+3\,a^4\,C+24\,a^2\,b^2\,C+48\,b^4\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(48\,A\,b^2+56\,a\,b\,B+3\,a^2\,C+36\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{96\,b\,d}+$$

$$\frac{(8\,b\,B+3\,a\,C)\,\mathrm{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{24\,d}+\frac{C\,\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{4\,d}+$$

$$\frac{\left(240\,a\,A\,b^2+24\,a^2\,b\,B+128\,b^3\,B-9\,a^3\,C+156\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b^2\,d}$$

$$-\frac{1}{384\,b\,d}\left(-\frac{1}{(a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}4\,a\,\left(-336\,a\,A\,b^2-136\,a^2\,b\,B-128\,b^3\,B+3\,a^3\,C-228\,a\,b^2\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-384\,a^2\,A\,b-192\,A\,b^3-416\,a\,b^2\,B-228\,a^2\,b\,C-144\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-240\,a\,A\,b^2-24\,a^2\,b\,B-128\,b^3\,B+9\,a^3\,C-156\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\frac{1}{b}\right.$$

$$2a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Big/\left(b\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{(48Ab^2+56abB+3a^2C+42b^2C)\,\mathrm{Sin}[c+dx]}{96b}+\frac{1}{48}(8bB+9aC)\,\mathrm{Sin}[2(c+dx)]+\frac{1}{16}bC\,\mathrm{Sin}[3(c+dx)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\sqrt{\mathrm{Cos}[c+dx]}},x,8,0\right\}$$

$$\frac{(a+b)\left(24 A b^2+30 a b B+3 a^2 C+16 b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{24 b d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{1}{12 d\sqrt{a+b\,\text{Cos}[c+d x]}}\left(24 a^2 A-48 a A b-24 a^2 B+6 a b B-12 b^2 B+7 a^2 C-26 a b C\right)$$

$$\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{1}{4 b d\sqrt{a+b\,\text{Cos}[c+d x]}}\left(24 a A b^2+6 a^2 b B+8 b^3 B-a^3 C+12 a b^2 C\right)\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{(2 b B+a C)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{4 d}+\frac{C\sqrt{\text{Cos}[c+d x]}\,(a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{3 d}+$$

$$\frac{\left(24 A b^2+30 a b B+3 a^2 C+16 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b d}$$

$$\frac{1}{48 d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}4 a\left(48 a^2 A+24 A b^2+42 a b B+17 a^2 C+16 b^2 C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$4 a\left(96 a A b+48 a^2 B+24 b^2 B+52 a b C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(24\,A\,b^2+30\,a\,b\,B+3\,a^2\,C+16\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\left(\frac{1}{12}(6bB+7aC)\operatorname{Sin}[c+d x]+\frac{1}{6}bC\operatorname{Sin}[2(c+d x)]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\operatorname{Cos}[c+d x])^{3/2}\left(A+B\operatorname{Cos}[c+d x]+C\operatorname{Cos}[c+d x]^2\right)}{\operatorname{Cos}[c+d x]^{3/2}},x,8,0\right\}$$

$$-\frac{(a+b)(8aA-4bB-5aC)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{4d\sqrt{a+b\operatorname{Cos}[c+d x]}}+$$

$$\frac{1}{2d\sqrt{a+b\operatorname{Cos}[c+d x]}}\left(4a^2A+8aAb-4Ab^2+4a^2B-8abB-4a^2C+abC-2b^2C\right)$$

$$\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{\left(8Ab^2+12abB+3a^2C+4b^2C\right)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticPi}\left[-1,\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{2d\sqrt{a+b\operatorname{Cos}[c+d x]}}-$$

$$\frac{b(4A-C)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{2d}+\frac{2A(a+b\operatorname{Cos}[c+d x])^{3/2}\operatorname{Sin}[c+d x]}{d\sqrt{\operatorname{Cos}[c+d x]}}-$$

$$\frac{(8aA-4bB-5aC)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{4d}$$

$$\frac{1}{8d}\left(\left(4a\left(-8aAb-8a^2B-4b^2B-7abC\right)\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\right)\Big/\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)+4a\left(8a^2A-8Ab^2-16abB-8a^2C-4b^2C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\operatorname{Csc}[c+dx]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+dx)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+dx]}\sqrt{a+b\operatorname{Cos}[c+dx]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+dx]\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\operatorname{Csc}[c+dx]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+dx])\operatorname{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)-$$

$$2\,(8aAb-4b^2B-5abC)\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\big[\frac{1}{2}(c+dx)\big]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}\,2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{2}bC\,\mathrm{Sin}[c+dx]+2aA\,\mathrm{Tan}[c+dx]\Big)}{d}$$

Incorrect antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\big(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{5/2}},\,x,\,8,\,0\Big\}$$

$$-\frac{(a+b)\,(8\,A\,b+6\,a\,B-3\,b\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(a^2\,A+4\,a\,A\,b+3\,A\,b^2+3\,a^2\,B+6\,a\,b\,B-3\,b^2\,B+3\,a^2\,C-6\,a\,b\,C\right)$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]+$$

$$\frac{2\,b\,(2\,b\,B+3\,a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A\,b+a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d\,\sqrt{\text{Cos}[c+d\,x]}}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\text{Cos}[c+d\,x]^{3/2}}-$$

$$\frac{(8\,A\,b+6\,a\,B-3\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d}$$

$$\frac{1}{6\,d}\Bigg(-\frac{1}{(a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,4\,a\,\left(2\,a^2\,A-2\,A\,b^2+6\,a\,b\,B+6\,a^2\,C+3\,b^2\,C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-8\,a\,A\,b-6\,a^2\,B+6\,b^2\,B+12\,a\,b\,C\right)\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\left(b\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{b\sqrt{\text{Cos}[c+d x]}}\Bigg)\Bigg)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\,\sqrt{a+b\,\text{Cos}[c+d x]}\left(\frac{2}{3}\text{Sec}[c+d x]\,(4 A b\,\text{Sin}[c+d x]+3 a B\,\text{Sin}[c+d x])+\frac{2}{3}a A\,\text{Sec}[c+d x]\,\text{Tan}[c+d x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{\text{Cos}[c+d x]^{7/2}},x,8,0\right\}$$

$$-\frac{2(a+b)\left(9 a^2 A+3 A b^2+20 a b B+15 a^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{15 a d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{1}{15 d\sqrt{a+b\,\text{Cos}[c+d x]}}2\left(9 a^2 A+12 a A b+3 A b^2+5 a^2 B+20 a b B+15 b^2 B+15 a^2 C+30 a b C-15 b^2 C\right)$$

$$\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{4 b^2 C\sqrt{1+\text{Cos}[c+d x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2(3 A b+5 a B)\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{15 d\,\text{Cos}[c+d x]^{3/2}}+\frac{2 A(a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{5 d\,\text{Cos}[c+d x]^{5/2}}+$$

$$\frac{2\left(9 a^2 A+3 A b^2+20 a b B+15 a^2 C\right)\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{15 a d\sqrt{\text{Cos}[c+d x]}}$$

$$-\frac{1}{15\,a\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(-3\,a^2\,A\,b+3\,A\,b^3-5\,a^3\,B+5\,a\,b^2\,B-15\,a^2\,b\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(9\,a^3\,A+3\,a\,A\,b^2+20\,a^2\,b\,B+15\,a^3\,C-15\,a\,b^2\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\left.\left.

$$-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}\,(c+d\,x)\Big]^4\Bigg)\Bigg/\Big(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\Bigg(\frac{2}{15}\,\mathrm{Sec}[c+d\,x]^2\,(6\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a\,B\,\mathrm{Sin}[c+d\,x])+$$

$$\frac{2\,\mathrm{Sec}[c+d\,x]\,\big(9\,a^2\,A\,\mathrm{Sin}[c+d\,x]+3\,A\,b^2\,\mathrm{Sin}[c+d\,x]+20\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+15\,a^2\,C\,\mathrm{Sin}[c+d\,x]\big)}{15\,a}+$$

$$\frac{2}{5}\,a\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\big(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\big)}{\mathrm{Cos}[c+d\,x]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(a+b)\,\big(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B+189\,a^4\,C+63\,a^2\,b^2\,C\big)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$2\,\big(147\,a^4\,A+186\,a^3\,A\,b+33\,a^2\,A\,b^2+2\,a\,A\,b^3+8\,A\,b^4+75\,a^4\,B+246\,a^3\,b\,B+153\,a^2\,b^2\,B-18\,a\,b^3\,B+189\,a^4\,C+252\,a^3\,b\,C+63\,a^2\,b^2\,C\big)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+$$

$$\frac{2\,(A\,b+3\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{21\,d\,\mathrm{Cos}[c+d\,x]^{7/2}}+\frac{2\,\big(49\,a^2\,A+3\,A\,b^2+72\,a\,b\,B+63\,a^2\,C\big)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{315\,a\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+$$

$$\frac{2\,\big(88\,a^2\,A\,b-4\,A\,b^3+75\,a^3\,B+9\,a\,b^2\,B+126\,a^2\,b\,C\big)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{315\,a^2\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{9\,d\,\mathrm{Cos}[c+d\,x]^{9/2}}+$$

$$\frac{2\,\big(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B+189\,a^4\,C+63\,a^2\,b^2\,C\big)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]}{315\,a^3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$-\frac{1}{315\,a^3\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right.$$

$$4\,a\left(-39\,a^4\,A\,b+31\,a^2\,A\,b^3+8\,A\,b^5-75\,a^5\,B+93\,a^3\,b^2\,B-18\,a\,b^4\,B-63\,a^4\,b\,C+63\,a^2\,b^3\,C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(147\,a^5\,A+33\,a^3\,A\,b^2+8\,a\,A\,b^4+246\,a^4\,b\,B-18\,a^2\,b^3\,B+189\,a^5\,C+63\,a^3\,b^2\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(147a^4Ab+33a^2Ab^3+8Ab^5+246a^3b^2B-18ab^4B+189a^4bC+63a^2b^3C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\frac{1}{b}$$

$$2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Bigg(\frac{2}{63}\mathrm{Sec}[c+dx]^4\,(10\,A\,b\,\mathrm{Sin}[c+dx]+9\,a\,B\,\mathrm{Sin}[c+dx])+$$

$$\frac{2\,\mathrm{Sec}[c+dx]^3\,\left(49\,a^2\,A\,\mathrm{Sin}[c+dx]+3\,A\,b^2\,\mathrm{Sin}[c+dx]+72\,a\,b\,B\,\mathrm{Sin}[c+dx]+63\,a^2\,C\,\mathrm{Sin}[c+dx]\right)}{315\,a}+$$

$$\frac{1}{315\,a^2}$$

$$2\,\mathrm{Sec}[c+dx]^2$$

$$\left(88\,a^2\,A\,b\,\mathrm{Sin}[c+dx]-4\,A\,b^3\,\mathrm{Sin}[c+dx]+75\,a^3\,B\,\mathrm{Sin}[c+dx]+9\,a\,b^2\,B\,\mathrm{Sin}[c+dx]+126\,a^2\,b\,C\,\mathrm{Sin}[c+dx]\right)+$$

$$\frac{1}{315\,a^3}2\,\mathrm{Sec}[c+dx]\,\left(147\,a^4\,A\,\mathrm{Sin}[c+dx]+33\,a^2\,A\,b^2\,\mathrm{Sin}[c+dx]+8\,A\,b^4\,\mathrm{Sin}[c+dx]+246\,a^3\,b\,B\,\mathrm{Sin}[c+dx]-\right.$$

$$\left.18\,a\,b^3\,B\,\mathrm{Sin}[c+dx]+189\,a^4\,C\,\mathrm{Sin}[c+dx]+63\,a^2\,b^2\,C\,\mathrm{Sin}[c+dx]\right)+\frac{2}{9}a\,A\,\mathrm{Sec}[c+dx]^4\,\mathrm{Tan}[c+dx]\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right),\ x,\ 10,\ 0\right\}$$

$$\frac{1}{1920\,b^2\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}(a+b)\left(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]-\frac{1}{960\,b\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$\left(1920\,a^3\,A\,b-1040\,a^2\,A\,b^2+3040\,a\,A\,b^3-590\,a^3\,b\,B+3220\,a^2\,b^2\,B-360\,a\,b^3\,B+720\,b^4\,B-15\,a^4\,C+1146\,a^3\,b\,C-772\,a^2\,b^2\,C+\right.$$

$$\left.2312\,a\,b^3\,C\right)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+$$

$$\frac{1}{64\,b^2\,d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}\left(80\,a^3\,A\,b^2+320\,a\,A\,b^4-10\,a^4\,b\,B+240\,a^2\,b^3\,B+96\,b^5\,B+3\,a^5\,C+40\,a^3\,b^2\,C+240\,a\,b^4\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticPi}\Big[-1,\ \mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+$$

$$\frac{\left(1040\,a\,A\,b^2+590\,a^2\,b\,B+360\,b^3\,B+15\,a^3\,C+772\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{960\,b\,d}+$$

$$\frac{\left(80\,A\,b^2+110\,a\,b\,B+15\,a^2\,C+64\,b^2\,C\right)\mathrm{Cos}[c+dx]^{3/2}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{240\,d}+$$

$$\frac{(2\,b\,B+a\,C)\,\mathrm{Cos}[c+dx]^{3/2}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}[c+dx]}{8\,d}+\frac{C\,\mathrm{Cos}[c+dx]^{3/2}\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\mathrm{Sin}[c+dx]}{5\,d}+$$

$$\frac{1}{1920\,b^2\,d}\left(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]$$

$$-\frac{1}{3840\,b\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right.$$

$$4\,a\left(-4720\,a^2\,A\,b^2-1280\,A\,b^4-1330\,a^3\,b\,B-3560\,a\,b^3\,B+15\,a^4\,C-3236\,a^2\,b^2\,C-1024\,b^4\,C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-3840\,a^3\,A\,b-6080\,a\,A\,b^3-6440\,a^2\,b^2\,B-1440\,b^4\,B-2292\,a^3\,b\,C-4624\,a\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(-2640a^2Ab^2-1280Ab^4-150a^3bB-2840ab^3B+45a^4C-1692a^2b^2C-1024b^4C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\frac{1}{b}$$

$$2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}\,(c+d\,x)\Big]^4\Bigg)\Bigg/\Big(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\Bigg(\frac{\left(1040\,a\,A\,b^2+590\,a^2\,b\,B+420\,b^3\,B+15\,a^3\,C+898\,a\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{960\,b}+\frac{1}{480}\left(80\,A\,b^2+170\,a\,b\,B+93\,a^2\,C+88\,b^2\,C\right)\mathrm{Sin}[2\,(c+d\,x)]+\frac{1}{160}\,b\,(10\,b\,B+21\,a\,C)\,\mathrm{Sin}[3\,(c+d\,x)]+\frac{1}{40}\,b^2\,C\,\mathrm{Sin}[4\,(c+d\,x)]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Cos}[c+d\,x]}},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{192\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(432\,a\,A\,b^2+264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{1}{96\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(192\,a^3\,A-576\,a^2\,A\,b+48\,a\,A\,b^2-96\,A\,b^3-192\,a^3\,B+104\,a^2\,b\,B-304\,a\,b^2\,B+59\,a^3\,C-322\,a^2\,b\,C+36\,a\,b^2\,C-72\,b^3\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{1}{32\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(240\,a^2\,A\,b^2+64\,A\,b^4+40\,a^3\,b\,B+160\,a\,b^3\,B-5\,a^4\,C+120\,a^2\,b^2\,C+48\,b^4\,C\right)\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\Big[-1,\ \mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{\left(16\,A\,b^2+24\,a\,b\,B+5\,a^2\,C+12\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{32\,d}+\frac{(8\,b\,B+5\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{24\,d}+\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{4\,d}+\frac{\left(432\,a\,A\,b^2+264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]}{192\,b\,d}$$

$$\frac{1}{384\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(384\,a^3\,A+528\,a\,A\,b^2+472\,a^2\,b\,B+128\,b^3\,B+133\,a^3\,C+356\,a\,b^2\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(1152\,a^2\,A\,b+192\,A\,b^3+384\,a^3\,B+608\,a\,b^2\,B+644\,a^2\,b\,C+144\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(432\,a\,A\,b^2+264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{96}\left(48Ab^2+104abB+59a^2C+42b^2C\right)\mathrm{Sin}[c+dx]+$$

$$\frac{1}{48}b\,(8bB+17aC)$$

$$\mathrm{Sin}[2(c+dx)]+\frac{1}{16}b^2C\,\mathrm{Sin}[3(c+dx)]\Big)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\mathrm{Cos}[c+dx]^{3/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{24d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}(a+b)\left(48a^2A-24Ab^2-54abB-33a^2C-16b^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\ \mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+\frac{1}{12d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$\left(24a^3A+72a^2Ab-72aAb^2+24a^3B-72a^2bB+6ab^2B-12b^3B-24a^3C+13a^2bC-38ab^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\ \mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+\frac{1}{4d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$\left(40aAb^2+30a^2bB+8b^3B+5a^3C+20ab^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}$$

$$\mathrm{EllipticPi}\Big[-1,\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]-\frac{b\,(8aA-2bB-3aC)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{4d}-$$

$$\frac{b\,(6A-C)\sqrt{\mathrm{Cos}[c+dx]}\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}[c+dx]}{3d}+\frac{2A\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\mathrm{Sin}[c+dx]}{d\sqrt{\mathrm{Cos}[c+dx]}}-$$

$$\frac{\left(48a^2A-24Ab^2-54abB-33a^2C-16b^2C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{24d}$$

$$\frac{1}{48\,d}\left(\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(-96\,a^2\,A\,b-24\,A\,b^3-48\,a^3\,B-66\,a\,b^2\,B-59\,a^2\,b\,C-16\,b^3\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$4\,a\left(48\,a^3\,A-144\,a\,A\,b^2-144\,a^2\,b\,B-24\,b^3\,B-48\,a^3\,C-76\,a\,b^2\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)-2\,\left(48\,a^2\,A\,b-24\,A\,b^3-54\,a\,b^2\,B-33\,a^2\,b\,C-16\,b^3\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{1}{12}\,b\,(6\,b\,B+13\,a\,C)\,\mathrm{Sin}[c+d\,x]+\frac{1}{6}\,b^2\,C\,\mathrm{Sin}[2\,(c+d\,x)]+2\,a^2\,A\,\mathrm{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\mathrm{Cos}[c+d\,x]^{5/2}},\;x,\;9,\;0\right\}$$

$$-\frac{(a+b)\,\left(56\,a\,A\,b+24\,a^2\,B-12\,b^2\,B-27\,a\,b\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{12\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{1}{6\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(4\,a^3\,A+28\,a^2\,A\,b+36\,a\,A\,b^2-12\,A\,b^3+12\,a^3\,B+36\,a^2\,b\,B-36\,a\,b^2\,B+12\,a^3\,C-36\,a^2\,b\,C+3\,a\,b^2\,C-6\,b^3\,C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]+$$

$$\frac{b\,\left(8\,A\,b^2+20\,a\,b\,B+15\,a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{b\,(8\,A\,b+4\,a\,B-b\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,d}+\frac{2\,(5\,A\,b+3\,a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{3\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}-\frac{\left(56\,a\,A\,b+24\,a^2\,B-12\,b^2\,B-27\,a\,b\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{12\,d}$$

$$\frac{1}{24\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(8\,a^3\,A+16\,a\,A\,b^2+48\,a^2\,b\,B+12\,b^3\,B+24\,a^3\,C+33\,a\,b^2\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-56\,a^2\,A\,b+24\,A\,b^3-24\,a^3\,B+72\,a\,b^2\,B+72\,a^2\,b\,C+12\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-56\,a\,A\,b^2-24\,a^2\,b\,B+12\,b^3\,B+27\,a\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Big(\frac{1}{2}b^2C\,\mathrm{Sin}[c+dx]+\frac{2}{3}\mathrm{Sec}[c+dx]\,\big(7aAb\,\mathrm{Sin}[c+dx]+3a^2B\,\mathrm{Sin}[c+dx]\big)+\frac{2}{3}a^2A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\Big)$$

Incorrect antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\big(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{7/2}},\ x,\ 9,\ 0\Big\}$$

$$-\frac{1}{15d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}(a+b)\,\big(18a^2A+46Ab^2+70abB+30a^2C-15b^2C\big)\sqrt{1+\mathrm{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\ \mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{1}{15d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$

$$2\,\big(9a^3A+17a^2Ab+23aAb^2+15Ab^3+5a^3B+35a^2bB+45ab^2B-15b^3B+15a^3C+45a^2bC-45ab^2C\big)$$

$$\sqrt{1+\mathrm{Cos}[c+dx]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\ \mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+$$

$$\frac{2b^2\,(2bB+5aC)\sqrt{1+\mathrm{Cos}[c+dx]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)\,(1+\mathrm{Cos}[c+dx])}}\ \mathrm{EllipticPi}\Big[-1,\ \mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],\ -\frac{a-b}{a+b}\Big]}{d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\,\big(3a^2A+5Ab^2+10abB+5a^2C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\ \mathrm{Sin}[c+dx]}{5d\sqrt{\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\,(Ab+aB)\,(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}[c+dx]}{3d\,\mathrm{Cos}[c+dx]^{3/2}}+\frac{2A\,(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\mathrm{Sin}[c+dx]}{5d\,\mathrm{Cos}[c+dx]^{5/2}}-$$

$$\frac{\big(18a^2A+46Ab^2+70abB+30a^2C-15b^2C\big)\sqrt{\mathrm{Cos}[c+dx]}\ \sqrt{a+b\,\mathrm{Cos}[c+dx]}\ \mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]}{15d}$$

$$\frac{1}{30\,d}\left(\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(-16\,a^2\,A\,b+16\,A\,b^3-10\,a^3\,B-20\,a\,b^2\,B-60\,a^2\,b\,C-15\,b^3\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$4\,a\left(18\,a^3\,A+46\,a\,A\,b^2+70\,a^2\,b\,B-30\,b^3\,B+30\,a^3\,C-90\,a\,b^2\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/$$

$$\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)-2\left(18a^2Ab+46Ab^3+70ab^2B+30a^2bC-15b^3C\right)$$

$$\Bigg(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg)\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2\,a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}\,(c+d\,x)\Big]^4\Bigg)\Bigg/\Big(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\Big)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\Big(\frac{2}{15}\,\mathrm{Sec}[c+d\,x]^2\,\big(11\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a^2\,B\,\mathrm{Sin}[c+d\,x]\big)+\frac{2}{15}\,\mathrm{Sec}[c+d\,x]\,\big(9\,a^2\,A\,\mathrm{Sin}[c+d\,x]+23\,A\,b^2\,\mathrm{Sin}[c+d\,x]+35\,a\,b\,B\,\mathrm{Sin}[c+d\,x]+15\,a^2\,C\,\mathrm{Sin}[c+d\,x]\big)+\frac{2}{5}\,a^2\,A\,\mathrm{Sec}[c+d\,x]^2\,\mathrm{Tan}[c+d\,x]\Big)$$

Incorrect antiderivative:

$$\Big\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\big(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\big)}{\mathrm{Cos}[c+d\,x]^{9/2}},\ x,\ 9,\ 0\Big\}$$

$$-\frac{1}{105\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(a+b)\,\big(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+245\,a^2\,b\,C\big)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+\frac{1}{105\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$2\,\big(25\,a^3\,A+145\,a^2\,A\,b+135\,a\,A\,b^2+15\,A\,b^3+63\,a^3\,B+119\,a^2\,b\,B+161\,a\,b^2\,B+105\,b^3\,B+35\,a^3\,C+245\,a^2\,b\,C+315\,a\,b^2\,C-105\,b^3\,C\big)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]+$$

$$\frac{4\,b^3\,C\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticPi}\Big[-1,\ \mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]\Big],\ -\frac{a-b}{a+b}\Big]}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{2\,\big(25\,a^2\,A+15\,A\,b^2+56\,a\,b\,B+35\,a^2\,C\big)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{105\,d\,\mathrm{Cos}[c+d\,x]^{3/2}}+$$

$$\frac{2\,(5\,A\,b+7\,a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{35\,d\,\mathrm{Cos}[c+d\,x]^{5/2}}+\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{7\,d\,\mathrm{Cos}[c+d\,x]^{7/2}}+$$

$$\frac{2\,\big(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+245\,a^2\,b\,C\big)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\Big[\frac{1}{2}\,(c+d\,x)\Big]}{105\,a\,d\,\sqrt{\mathrm{Cos}[c+d\,x]}}$$

$$\frac{1}{105\,a\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(25\,a^4\,A-10\,a^2\,A\,b^2-15\,A\,b^4+56\,a^3\,b\,B-56\,a\,b^3\,B+35\,a^4\,C+70\,a^2\,b^2\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(-145\,a^3\,A\,b-15\,a\,A\,b^3-63\,a^4\,B-161\,a^2\,b^2\,B-245\,a^3\,b\,C+105\,a\,b^3\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\,\left(-145\,a^2\,A\,b^2-15\,A\,b^4-63\,a^3\,b\,B-161\,a\,b^3\,B-245\,a^2\,b^2\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\,\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Bigg(\frac{2}{35}\mathrm{Sec}[c+dx]^3\big(15aAb\,\mathrm{Sin}[c+dx]+7a^2B\,\mathrm{Sin}[c+dx]\big)+$$
$$\frac{2}{105}\mathrm{Sec}[c+dx]^2$$
$$\big(25a^2A\,\mathrm{Sin}[c+dx]+45Ab^2\,\mathrm{Sin}[c+dx]+77abB\,\mathrm{Sin}[c+dx]+35a^2C\,\mathrm{Sin}[c+dx]\big)+$$
$$\frac{1}{105a}2\,\mathrm{Sec}[c+dx]\,\big(145a^2Ab\,\mathrm{Sin}[c+dx]+15Ab^3\,\mathrm{Sin}[c+dx]+63a^3B\,\mathrm{Sin}[c+dx]+$$
$$161ab^2B\,\mathrm{Sin}[c+dx]+245a^2bC\,\mathrm{Sin}[c+dx]\big)+\frac{2}{7}a^2A\,\mathrm{Sec}[c+dx]^3\,\mathrm{Tan}[c+dx]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+dx])^{5/2}\big(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\big)}{\mathrm{Cos}[c+dx]^{11/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{315a^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}2(a+b)\big(147a^4A+279a^2Ab^2-10Ab^4+435a^3bB+45ab^3B+189a^4C+483a^2b^2C\big)$$
$$\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+\frac{1}{315ad\sqrt{a+b\,\mathrm{Cos}[c+dx]}}$$
$$2\big(147a^4A+261a^3Ab+279a^2Ab^2+155aAb^3-10Ab^4+75a^4B+435a^3bB+405a^2b^2B+45ab^3B+189a^4C+357a^3bC+$$
$$483a^2b^2C+315ab^3C\big)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]+$$
$$\frac{2\big(49a^2A+15Ab^2+90abB+63a^2C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{315d\,\mathrm{Cos}[c+dx]^{5/2}}+$$
$$\frac{2\big(163a^2Ab+5Ab^3+75a^3B+135ab^2B+231a^2bC\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{315ad\,\mathrm{Cos}[c+dx]^{3/2}}+$$
$$\frac{2(5Ab+9aB)(a+b\,\mathrm{Cos}[c+dx])^{3/2}\,\mathrm{Sin}[c+dx]}{63d\,\mathrm{Cos}[c+dx]^{7/2}}+\frac{2A(a+b\,\mathrm{Cos}[c+dx])^{5/2}\,\mathrm{Sin}[c+dx]}{9d\,\mathrm{Cos}[c+dx]^{9/2}}+$$
$$\frac{2\big(147a^4A+279a^2Ab^2-10Ab^4+435a^3bB+45ab^3B+189a^4C+483a^2b^2C\big)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]}{315a^2d\sqrt{\mathrm{Cos}[c+dx]}}$$

$$-\frac{1}{315\,a^2\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right.$$

$$4\,a\left(-114\,a^4\,A\,b+124\,a^2\,A\,b^3-10\,A\,b^5-75\,a^5\,B+30\,a^3\,b^2\,B+45\,a\,b^4\,B-168\,a^4\,b\,C+168\,a^2\,b^3\,C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\left(147\,a^5\,A+279\,a^3\,A\,b^2-10\,a\,A\,b^4+435\,a^4\,b\,B+45\,a^2\,b^3\,B+189\,a^5\,C+483\,a^3\,b^2\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(147a^4Ab+279a^2Ab^3-10Ab^5+435a^3b^2B+45ab^4B+189a^4bC+483a^2b^3C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\frac{1}{b}$$

$$2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Bigg(\frac{2}{63}\mathrm{Sec}[c+dx]^4\big(19aAb\,\mathrm{Sin}[c+dx]+9a^2B\,\mathrm{Sin}[c+dx]\big)+$$

$$\frac{2}{315}\mathrm{Sec}[c+dx]^3$$

$$\big(49a^2A\,\mathrm{Sin}[c+dx]+75Ab^2\,\mathrm{Sin}[c+dx]+135abB\,\mathrm{Sin}[c+dx]+63a^2C\,\mathrm{Sin}[c+dx]\big)+\frac{1}{315a}2\,\mathrm{Sec}[c+dx]^2$$

$$\big(163a^2Ab\,\mathrm{Sin}[c+dx]+5Ab^3\,\mathrm{Sin}[c+dx]+75a^3B\,\mathrm{Sin}[c+dx]+135ab^2B\,\mathrm{Sin}[c+dx]+231a^2bC\,\mathrm{Sin}[c+dx]\big)+$$

$$\frac{1}{315a^2}2\,\mathrm{Sec}[c+dx]\,\big(147a^4A\,\mathrm{Sin}[c+dx]+279a^2Ab^2\,\mathrm{Sin}[c+dx]-10Ab^4\,\mathrm{Sin}[c+dx]+435a^3bB\,\mathrm{Sin}[c+dx]+$$

$$45ab^3B\,\mathrm{Sin}[c+dx]+189a^4C\,\mathrm{Sin}[c+dx]+483a^2b^2C\,\mathrm{Sin}[c+dx]\big)+\frac{2}{9}a^2A\,\mathrm{Sec}[c+dx]^4\,\mathrm{Tan}[c+dx]\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\mathrm{Cos}[c+dx]^{3/2}\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},\ x,\ 8,\ 0\right\}$$

$$\frac{(a+b)\left(24Ab^2-18abB+15a^2C+16b^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{24b^3d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{\left(6abB-12b^2B-5a^2C-2abC\right)\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{12b^2d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}-$$

$$\frac{1}{4b^3d\sqrt{a+b\,\mathrm{Cos}[c+dx]}}\left(8aAb^2-6a^2bB-8b^3B+5a^3C+4ab^2C\right)\sqrt{1+\mathrm{Cos}[c+dx]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]+$$

$$\frac{(6bB-5aC)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{12b^2d}+\frac{C\,\mathrm{Cos}[c+dx]^{3/2}\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3bd}+$$

$$\frac{\left(24Ab^2-18abB+15a^2C+16b^2C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{24b^3d}$$

$$\frac{1}{48 b^2 d}\left(-\left(4 a \left(24 A b^2-6 a b B+5 a^2 C+16 b^2 C\right) \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]\right.$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)-$$

$$4 a \left(24 b^2 B+4 a b C\right)\left(\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]\right.$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right)-$$

$$\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\left(\operatorname{Csc}[c+d x]\,\operatorname{EllipticPi}\left[-\frac{a}{b},\,\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Big/\left(b\sqrt{\operatorname{Cos}[c+d x]}\,\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\right)+2\left(24 A b^2-18 a b B+15 a^2 C+16 b^2 C\right)$$

$$\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\,\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],\,-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\,\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\,\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Big/\left((a+b)\right.\right.$$

$$\left.\left.\sqrt{\operatorname{Cos}[c+d x]}\,\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right\Big/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)+$$

$$\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\left(\frac{(6\,b\,B-5\,a\,C)\,\mathrm{Sin}[c+d\,x]}{12\,b^2}+\frac{C\,\mathrm{Sin}[2\,(c+d\,x)]}{6\,b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+d\,x]}\;\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\;x,\;7,\;0\right\}$$

$$\frac{(a+b)\,(4\,b\,B-3\,a\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{4\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{(4\,A\,b-a\,C+2\,b\,C)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{\left(8\,A\,b^2-4\,a\,b\,B+3\,a^2\,C+4\,b^2\,C\right)\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\;\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\;\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{2\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,b\,d}+\frac{(4\,b\,B-3\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^2\,d}$$

$$\frac{C\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{2\,b\,d}+$$

$$\frac{1}{8\,b\,d}\left(-\left(4\,a\,(4\,b\,B-a\,C)\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-4\,a\,(8\,A\,b+4\,b\,C)$$

$$\Bigg(\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,(4\,b\,B-3\,a\,C)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Big/\left(b\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\sqrt{\mathrm{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{(a+b)\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A-B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,b\,B-a\,C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d}$$

$$\frac{1}{2\,d}\left(-\left(4\,a\,(2\,A+C)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$8\,a\,B\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,C\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\text{Csc}[c+d\,x]\;\text{EllipticPi}\Bigg[-\frac{a}{b},\;\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}},\;x,\;6,\;0\right\}$$

$$-\frac{2\,A\,(a+b)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A+B-C)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,C\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\;\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\;-\frac{a-b}{a+b}\right]}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,d\,\sqrt{\text{Cos}[c+d\,x]}}$$

$$\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]}\ \operatorname{Sin}[c+d x]}{a d \sqrt{\operatorname{Cos}[c+d x]}} - \frac{1}{a d}\left(-\left(4 a (A b - a B) \sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right]\right.$$

$$\left.\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/ \left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right) - 4 a (a A - a C)$$

$$\left(\left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x] \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right], -\frac{2 a}{-a+b}\right] \operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right) \Big/$$

$$\left((a+b) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{a+b \operatorname{Cos}[c+d x]}\right) - \left(\sqrt{\frac{(a+b) \operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}} \sqrt{-\frac{(a+b) \operatorname{Cos}[c+d x] \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}} \operatorname{Csc}[c+d x] \operatorname{EllipticPi}\left[-\frac{a}{b}, \operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2Ab\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Bigg[\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Bigg[-\frac{a}{b},\mathrm{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2a}{-a+b}\Bigg]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\mathrm{Cos}[c+dx]}\,\left(aA+(Ab+aB)\,\mathrm{Cos}[c+dx]+bB\,\mathrm{Cos}[c+dx]^2\right)}{\sqrt{a+b\,\mathrm{Cos}[c+dx]}},x,7,0\right\}$$

$$\frac{(a+b)\,(4\,A\,b+a\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{(4\,a\,A-a\,B+2\,b\,B)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,a\,A\,b-a^2\,B+4\,b^2\,B\right)\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+\frac{(4\,A\,b+a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d}$$

$$\frac{B\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d}+$$

$$\frac{1}{8\,d}\left(-\left(4\,a\,(4\,A\,b+3\,a\,B)\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\,(8\,a\,A+4\,b\,B)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left(\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/$$

$$\left((a+b)\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+$$

$$2(4Ab+aB)\left(\frac{i\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{EllipticE}\left[i\operatorname{ArcSinh}\left[\frac{\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]}{\sqrt{\operatorname{Cos}[c+d x]}}\right],-\frac{2a}{-a-b}\right]\operatorname{Sec}[c+d x]}{b\sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2\operatorname{Sec}[c+d x]}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Sec}[c+d x]}{a+b}}}+\right.$$

$$\frac{1}{b}2a\left(\left(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Bigg/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,8,\,0\right\}$$

$$-\frac{\left(8\,a\,A\,b^2-12\,a^2\,b\,B+4\,b^3\,B+15\,a^3\,C-7\,a\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{4\,(a-b)\,b^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$+\frac{\left(4\,A\,b^2-4\,a\,b\,B+5\,a^2\,C-3\,a\,b\,C+2\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(8\,A\,b^2-12\,a\,b\,B+15\,a^2\,C+4\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{2\,b^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Cos}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(4\,A\,b^2-4\,a\,b\,B+5\,a^2\,C-b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,b^2\left(a^2-b^2\right)d}-$$

$$\frac{\left(8\,a\,A\,b^2-12\,a^2\,b\,B+4\,b^3\,B+15\,a^3\,C-7\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{4\,b^3\left(a^2-b^2\right)d}$$

$$\frac{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{C\,\text{Sin}[c+d\,x]}{2\,b^2}+\frac{2\left(a\,A\,b^2\,\text{Sin}[c+d\,x]-a^2\,b\,B\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x]\right)}{b^2\left(a^2-b^2\right)\left(a+b\,\text{Cos}[c+d\,x]\right)}\right)}{d}-\frac{1}{8\,(a-b)\,b^2\,(a+b)\,d}$$

$$\left(-\left(4\,a\left(-4\,a^2\,b\,B+4\,b^3\,B+5\,a^3\,C-5\,a\,b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\left(8\,A\,b^3-8\,a\,b^2\,B+4\,a^2\,b\,C+4\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(8\,a\,A\,b^2-12\,a^2\,b\,B+4\,b^3\,B+15\,a^3\,C-7\,a\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$\frac{\left(2\,A\,b^2-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\,(A\,b-b\,B+a\,C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(2\,b\,B-3\,a\,C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\left(a^2-b^2\right)d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{\left(2\,A\,b^2-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{b^2\left(a^2-b^2\right)d}$$

$$-\frac{2\sqrt{\text{Cos}[c+d\,x]}\,\left(A\,b^2\,\text{Sin}[c+d\,x]-a\,b\,B\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{2\,(a-b)\,b\,(a+b)\,d}\left(-\left(4\,a\,\left(a^2\,C-b^2\,C\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$4\,a\,\left(2\,a\,A\,b-2\,b^2\,B+2\,a\,b\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(2\,A\,b^2-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\Bigg[-\frac{a}{b},\,\text{ArcSin}\Bigg[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\Bigg],$$

$$-\frac{2\,a}{-a+b}\Bigg]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,6,\,0\right\}$$

$$-\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{a\,(a-b)\,b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A-B+C)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{4\,C\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]}{b\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{a\,b\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\frac{2\sqrt{\text{Cos}[c+d\,x]}\left(A\,b^2\,\text{Sin}[c+d\,x]-a\,b\,B\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{a\,(a-b)\,(a+b)\,d}\left(-\left(4\,a\left(a^2\,A-A\,b^2\right)\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]$$

$$\left.\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-4\,a\left(-a\,A\,b+a^2\,B-a\,b\,C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+$$

$$2\,\left(-A\,b^2+a\,b\,B-a^2\,C\right)\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\;-\frac{2\,a}{-a-b}\right]\,\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\,\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\;-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Big((a+b)$$

$$\left.\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\;\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.\left.\left.-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\;\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}[c+d\,x]}}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\mathrm{Cos}[c+d\,x]^{3/2}\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}},\;x,\;5,\;0\right\}$$

$$-\frac{2\left(a^2 A-2 A b^2+a b B-a^2 C\right)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{a^2(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2(a A-2 A b+a B-a C)\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)\,(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{a(a-b)\,d\sqrt{a+b\,\text{Cos}[c+d x]}}+$$

$$\frac{2\left(A b^2-a b B+a^2 C\right)\text{Sin}[c+d x]}{a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}+\frac{2\left(a^2 A-2 A b^2+a b B-a^2 C\right)\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{a^2\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d x]}}$$

$$\Bigg(4\left(\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\sqrt{\text{Cos}[c+d x]}$$

$$\Bigg((a+b)\left(\left(2 A b^2-a b B+a^2(-A+C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+a(-2 A b+a(A+B-C))\,\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\Big]\right)\sqrt{\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$\left(-2 A b^2+a b B+a^2(A-C)\right)\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\left(a^2\left(a^2-b^2\right)d\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\,(1+\text{Cos}[c+d x])^{3/2}\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}\right)+$$

$$\frac{\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\left(-\frac{2\left(A b^3\,\text{Sin}[c+d x]-a b^2 B\,\text{Sin}[c+d x]+a^2 b C\,\text{Sin}[c+d x]\right)}{a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])}+\frac{2 A\,\text{Tan}[c+d x]}{a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{\text{Cos}[c+d x]^{5/2}\,(a+b\,\text{Cos}[c+d x])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B-3a^2bC\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a^3(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\left(2\left(a^2A-6aAb+8Ab^2+3a^2B-6abB+3a^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)\,(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3a^2(a-b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2\left(Ab^2-abB+a^2C\right)\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2\left(a^2A-4Ab^2+3abB-3a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}-$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B-3a^2bC\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{3a^3(a-b)(a+b)d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(a^4A+7a^2Ab^2-8Ab^4-6a^3bB+6ab^3B+3a^4C-3a^2b^2C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(5a^3Ab-8aAb^3-3a^4B+6a^2b^2B-3a^3bC\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\,\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]$$

$$\left.\left.\left.

$$\text{Csc}[c+d\,x]\ \text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\ -\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\ \text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\ \sqrt{-\frac{(a+b)\ \text{Cos}[c+d\,x]\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\ \text{Csc}[c+d\,x]\ \text{EllipticPi}\left[-\frac{a}{b},\ \text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\ \text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\ \text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg(b\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\ \text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\ \sqrt{a+b\,\text{Cos}[c+d\,x]}\ \Bigg(\frac{2\,\text{Sec}[c+d\,x]\ (-5\,A\,b\,\text{Sin}[c+d\,x]+3\,a\,B\,\text{Sin}[c+d\,x])}{3\,a^3}+$$

$$\frac{2\left(A\,b^4\,\text{Sin}[c+d\,x]-a\,b^3\,B\,\text{Sin}[c+d\,x]+a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{a^3\left(a^2-b^2\right)\ (a+b\,\text{Cos}[c+d\,x])}+$$

$$\frac{2\,A\,\text{Sec}[c+d\,x]\ \text{Tan}[c+d\,x]}{3\,a^2}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{7/2}\ (a+b\,\text{Cos}[c+d\,x])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$-\left(2\left(9a^4A+24a^2Ab^2-48Ab^4-25a^3bB+40ab^3B+15a^4C-30a^2b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(15a^4(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(9a^3A-12a^2Ab+36aAb^2-48Ab^3+5a^3B-30a^2bB+40ab^2B+15a^3C-30a^2bC\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(15a^3(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{2\left(Ab^2-abB+a^2C\right)\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{5/2}\sqrt{a+b\,\text{Cos}[c+dx]}}+\frac{2\left(a^2A-6Ab^2+5abB-5a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{5a^2\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{5/2}}-$$

$$\frac{2\left(9a^2Ab-24Ab^3-5a^3B+20ab^2B-15a^2bC\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{15a^3\left(a^2-b^2\right)d\,\text{Cos}[c+dx]^{3/2}}+$$

$$\frac{2\left(9a^4A+24a^2Ab^2-48Ab^4-25a^3bB+40ab^3B+15a^4C-30a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{15a^4\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+dx]}}$$

$$\frac{1}{15a^4(-a+b)(a+b)d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}\right.$$

$$4a\left(12a^4Ab+36a^2Ab^3-48Ab^5-5a^5B-35a^3b^2B+40ab^4B+30a^4bC-30a^2b^3C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(9a^5A+24a^3Ab^2-48aAb^4-25a^4bB+40a^2b^3B+15a^5C-30a^3b^2C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/$$

$$\left((a+b)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\Bigg(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+$$

$$2\,\left(9\,a^4\,A\,b+24\,a^2\,A\,b^3-48\,A\,b^5-25\,a^3\,b^2\,B+40\,a\,b^4\,B+15\,a^4\,b\,C-30\,a^2\,b^3\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\,\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\,\Bigg(\Bigg(a\,\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg/\Bigg(b\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\,\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\Bigg(\frac{2\,\text{Sec}[c+d\,x]^2\,(-9\,A\,b\,\text{Sin}[c+d\,x]+5\,a\,B\,\text{Sin}[c+d\,x])}{15\,a^3}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(9\,a^2\,A\,\text{Sin}[c+d\,x]+33\,A\,b^2\,\text{Sin}[c+d\,x]-25\,a\,b\,B\,\text{Sin}[c+d\,x]+15\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{15\,a^4}-$$

$$\frac{2\,\left(A\,b^5\,\text{Sin}[c+d\,x]-a\,b^4\,B\,\text{Sin}[c+d\,x]+a^2\,b^3\,C\,\text{Sin}[c+d\,x]\right)}{a^4\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+$$

$$\frac{2\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{5\,a^2}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Cos}[c+d\,x]^{3/2}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,8,\,0\right\}$$

$$-\left(\left(8 A b^4+6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^3 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(2\left(a A b^2+3 A b^3+2 a^2 b B-3 a b^2 B-3 b^3 B-5 a^3 C+3 a^2 b C+6 a b^2 C\right) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\right) \Big/ \left(3(a-b)^2 b^2 (a+b) d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{2(2 b B-5 a C) \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{b^3 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{2\left(A b^2-a b B+a^2 C\right) \text{Cos}[c+d x]^{3/2} \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^{3/2}}+$$

$$\frac{2\left(a^2 A b^2+3 A b^4+2 a^3 b B-6 a b^3 B-5 a^4 C+9 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{\left(8 A b^4+6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d}$$

$$\frac{1}{d} \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}\left(\frac{2\left(a A b^2 \text{Sin}[c+d x]-a^2 b B \text{Sin}[c+d x]+a^3 C \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+\right.$$

$$\left.\frac{2\left(4 A b^4 \text{Sin}[c+d x]+3 a^3 b B \text{Sin}[c+d x]-7 a b^3 B \text{Sin}[c+d x]-6 a^4 C \text{Sin}[c+d x]+10 a^2 b^2 C \text{Sin}[c+d x]\right)}{3 b^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)+$$

$$\frac{1}{6(a-b)^2 b^2(a+b)^2 d}\left(-\frac{1}{(a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{a+b \text{Cos}[c+d x]}}\right.$$

$$4 a\left(2 a^2 A b^2-2 A b^4-2 a^3 b B+2 a b^3 B+5 a^4 C-8 a^2 b^2 C+3 b^4 C\right) \sqrt{\frac{(a+b) \text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}$$

$$\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4-$$

$$4\,a\,\left(-8\,a\,A\,b^3+2\,a^2\,b^2\,B+6\,b^4\,B+4\,a^3\,b\,C-12\,a\,b^3\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\,\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Big/$$

$$\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+2\left(-8\,A\,b^4-6\,a^3\,b\,B+14\,a\,b^3\,B+15\,a^4\,C-26\,a^2\,b^2\,C+3\,b^4\,C\right)$$

$$\Bigg(\frac{i\,\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{EllipticE}\left[i\,\text{ArcSinh}\left[\frac{\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\text{Cos}[c+d\,x]}}\right],-\frac{2\,a}{-a-b}\right]\text{Sec}[c+d\,x]}{b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\;\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}[c+d\,x]}{a+b}}}+$$

$$\frac{1}{b}\,2\,a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Big/\Big((a+b)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\;\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Big/\Big(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Big)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\sqrt{\text{Cos}[c+d\,x]}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,7,\,0\right\}$$

$$\frac{2\left(3a^2Ab^2+Ab^4-4ab^3B-3a^4C+7a^2b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{3a(a-b)^2b^2(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\left(2\left(3aAb+Ab^2-abB-3b^2B-2a^2C+3abC+3b^2C\right)\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\right)\Big/\left(3(a-b)^2b(a+b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\frac{4C\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]}{b^2d\sqrt{a+b\,\text{Cos}[c+dx]}}-$$

$$\frac{2\left(Ab^2-abB+a^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{Sin}[c+dx]}{3b\left(a^2-b^2\right)d(a+b\,\text{Cos}[c+dx])^{3/2}}+\frac{2\left(3a^2Ab^2+Ab^4-4ab^3B-3a^4C+7a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a(a-b)b^2(a+b)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}\left(-\frac{2\left(Ab^2\text{Sin}[c+dx]-abB\,\text{Sin}[c+dx]+a^2C\,\text{Sin}[c+dx]\right)}{3b\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+\right.$$

$$\left.\frac{2\left(-3a^2Ab^2\text{Sin}[c+dx]-Ab^4\text{Sin}[c+dx]+4ab^3B\,\text{Sin}[c+dx]+3a^4C\,\text{Sin}[c+dx]-7a^2b^2C\,\text{Sin}[c+dx]\right)}{3ab\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])}\right)-$$

$$\frac{1}{3a(a-b)^2b(a+b)^2d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+dx]}\sqrt{a+b\,\text{Cos}[c+dx]}}4a\left(a^2Ab^2-Ab^4-a^3bB+ab^3B+a^4C-a^2b^2C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}$$

$$\text{Csc}[c+dx]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+dx)\right]^4-$$

$$4a\left(-3a^3Ab-aAb^3+4a^2b^2B-a^3bC-3ab^3C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+dx)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+dx]\,\text{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}\right.\right.$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\;\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]$$

$$\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\Bigg)\Bigg/\left((a+b)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\;\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]^4\right)\Bigg/$$

$$\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\Bigg)+2\left(-3\,a^2\,A\,b^2-A\,b^4+4\,a\,b^3\,B+3\,a^4\,C-7\,a^2\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\operatorname{Csc}[c+d x]\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\Bigg((a+b)$$

$$\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\operatorname{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\operatorname{Cos}[c+d x]\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\operatorname{Csc}[c+d x]\operatorname{EllipticPi}\left[-\frac{a}{b},\operatorname{ArcSin}\left[\frac{\sqrt{\frac{(a+b\operatorname{Cos}[c+d x])\operatorname{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2 a}{-a+b}\right]\operatorname{Sin}\left[\frac{1}{2}(c+d x)\right]^4\Bigg/\left(b\sqrt{\operatorname{Cos}[c+d x]}\sqrt{a+b\operatorname{Cos}[c+d x]}\right)\Bigg)+\frac{\sqrt{a+b\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{b\sqrt{\operatorname{Cos}[c+d x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\operatorname{Cos}[c+d x]+C\operatorname{Cos}[c+d x]^2}{\sqrt{\operatorname{Cos}[c+d x]}\,(a+b\operatorname{Cos}[c+d x])^{5/2}},x,5,0\right\}$$

$$-\frac{2\left(6a^2Ab-2Ab^3-3a^3B-ab^2B+4a^2bC\right)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]}{3a^2(a-b)^2(a+b)d\sqrt{a+b\operatorname{Cos}[c+d x]}}+$$

$$\Bigg(2\left(3a^2A+3aAb-2Ab^2-3a^2B-abB+a^2C+3abC\right)\sqrt{1+\operatorname{Cos}[c+d x]}\sqrt{\frac{a+b\operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\Bigg)\Bigg/\left(3a(a-b)^2(a+b)d\sqrt{a+b\operatorname{Cos}[c+d x]}\right)+$$

$$\frac{2\left(Ab^2-abB+a^2C\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{Sin}[c+d x]}{3a\left(a^2-b^2\right)d(a+b\operatorname{Cos}[c+d x])^{3/2}}-\frac{2\left(6a^2Ab-2Ab^3-3a^3B-ab^2B+4a^2bC\right)\sqrt{\operatorname{Cos}[c+d x]}\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{3a^2(a-b)(a+b)^2d\sqrt{a+b\operatorname{Cos}[c+d x]}}$$

$$\frac{1}{d}\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\frac{2\left(A\,b^2\,\text{Sin}[c+d\,x]-a\,b\,B\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{2\left(-6\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+2\,A\,b^4\,\text{Sin}[c+d\,x]+3\,a^3\,b\,B\,\text{Sin}[c+d\,x]+a\,b^3\,B\,\text{Sin}[c+d\,x]-4\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])}\right)+$$

$$\frac{1}{3\,a^2\,(a-b)^2\,(a+b)^2\,d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}4\,a\left(3\,a^4\,A-5\,a^2\,A\,b^2+2\,A\,b^4-a^3\,b\,B+a\,b^3\,B+a^4\,C-a^2\,b^2\,C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4-$$

$$4\,a\left(-6\,a^3\,A\,b+2\,a\,A\,b^3+3\,a^4\,B+a^2\,b^2\,B-4\,a^3\,b\,C\right)\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2\,a}{-a+b}\right]\right.$$

$$\left.\left.\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.$$

$$\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/$$

$$\left.\left(b\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\right)\right)+2\left(-6\,a^2\,A\,b^2+2\,A\,b^4+3\,a^3\,b\,B+a\,b^3\,B-4\,a^2\,b^2\,C\right)$$

$$\left(\frac{i\,\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{EllipticE}\left[i\,\mathrm{ArcSinh}\left[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{\mathrm{Cos}[c+d\,x]}}\right],\,-\frac{2\,a}{-a-b}\right]\mathrm{Sec}[c+d\,x]}{b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Sec}[c+d\,x]}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]}{a+b}}}+\right.$$

$$\frac{1}{b}\,2\,a\left(\left(a\,\sqrt{\frac{(a+b)\,\mathrm{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+d\,x]\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\right.\right.$$

$$\left.\left.\mathrm{Csc}[c+d\,x]\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\,-\frac{2\,a}{-a+b}\right]\mathrm{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\Big/\left((a+b)\right.\right.$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\Bigg)-\Bigg(a\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a+b}}\,\sqrt{-\frac{(a+b)\,\text{Cos}[c+d\,x]\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}\,\text{Csc}[c+d\,x]\,\text{EllipticPi}\left[-\frac{a}{b},\,\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Csc}\left[\frac{1}{2}(c+d\,x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$\left.-\frac{2\,a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]^4\Bigg)\Bigg/\left(b\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)\Bigg)+\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{b\sqrt{\text{Cos}[c+d\,x]}}\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{\text{Cos}[c+d\,x]^{3/2}\,(a+b\,\text{Cos}[c+d\,x])^{5/2}},\,x,\,6,\,0\right\}$$

$$-\Bigg(2\left(3\,a^4\,A-15\,a^2\,A\,b^2+8\,A\,b^4+6\,a^3\,b\,B-2\,a\,b^3\,B-3\,a^4\,C-a^2\,b^2\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\Bigg)\Bigg/\left(3\,a^3\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\Bigg(2\left(3\,a^3\,A-9\,a^2\,A\,b-6\,a\,A\,b^2+8\,A\,b^3+3\,a^3\,B+3\,a^2\,b\,B-2\,a\,b^2\,B-3\,a^3\,C-a^2\,b\,C\right)\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\Bigg)\Bigg/\left(3\,a^2\,(a-b)^2\,(a+b)\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)d\sqrt{\text{Cos}[c+d\,x]}\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}+\frac{2\left(8\,a^2\,A\,b^2-4\,A\,b^4-5\,a^3\,b\,B+a\,b^3\,B+2\,a^4\,C+2\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)^2 d\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\left(3\,a^4\,A-15\,a^2\,A\,b^2+8\,A\,b^4+6\,a^3\,b\,B-2\,a\,b^3\,B-3\,a^4\,C-a^2\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{3\,a^3\left(a^2-b^2\right)^2 d\sqrt{\text{Cos}[c+d\,x]}}$$

$$-\frac{1}{3 a^3 (a-b)^2 (a+b)^2 d}$$

$$\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}4 a \left(9 a^4 A b-17 a^2 A b^3+8 A b^5-3 a^5 B+5 a^3 b^2 B-2 a b^4 B+a^4 b C-a^2 b^3 C\right)\right.$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$4 a \left(3 a^5 A-15 a^3 A b^2+8 a A b^4+6 a^4 b B-2 a^2 b^3 B-3 a^5 C-a^3 b^2 C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(3a^4Ab-15a^2Ab^3+8Ab^5+6a^3b^2B-2ab^4B-3a^4bC-a^2b^3C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\,\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+\frac{1}{b}$$

$$2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\Bigg(-\frac{2\left(A b^3\,\mathrm{Sin}[c+dx]-a b^2 B\,\mathrm{Sin}[c+dx]+a^2 b C\,\mathrm{Sin}[c+dx]\right)}{3a^2\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}-$$

$$\Big(2\Big(9a^2 A b^3\,\mathrm{Sin}[c+dx]-5A b^5\,\mathrm{Sin}[c+dx]-6a^3 b^2 B\,\mathrm{Sin}[c+dx]+2a b^4 B\,\mathrm{Sin}[c+dx]+$$

$$3a^4 b C\,\mathrm{Sin}[c+dx]+a^2 b^3 C\,\mathrm{Sin}[c+dx]\Big)\Big)\Big/\Big(3a^3\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])\Big)+\frac{2A\,\mathrm{Tan}[c+dx]}{a^3}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2}{\mathrm{Cos}[c+dx]^{5/2}(a+b\,\mathrm{Cos}[c+dx])^{5/2}},\ x,\ 7,\ 0\right\}$$

$$\Bigg(2(a+b)\left(8a^4 A b-28a^2 A b^3+16A b^5-3a^5 B+15a^3 b^2 B-8a b^4 B-6a^4 b C+2a^2 b^3 C\right)$$

$$\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]\Bigg)\Big/$$

$$\Big(3a^4\left(a^2-b^2\right)^2 d\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(16\Big(-\frac{3}{8}a\left(a^4 A+7a^2 A b^2-4A b^4-6a^3 b B+2a b^3 B+3a^4 C+a^2 b^2 C\right)+$$

$$\frac{3}{8}\left(8a^4 A b-28a^2 A b^3+16A b^5-3a^5 B+15a^3 b^2 B-8a b^4 B-6a^4 b C+2a^2 b^3 C\right)\Big)$$

$$\sqrt{1+\mathrm{Cos}[c+dx]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+dx]}{(a+b)(1+\mathrm{Cos}[c+dx])}}\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]\Big],-\frac{a-b}{a+b}\Big]\Bigg)\Big/$$

$$\Big(9a^3\left(a^2-b^2\right)^2 d\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)+\frac{2\left(A b^2-a b B+a^2 C\right)\mathrm{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,\mathrm{Cos}[c+dx]^{3/2}(a+b\,\mathrm{Cos}[c+dx])^{3/2}}-$$

$$\frac{4\left(-\frac{3}{2}b^2\left(a^2 A-2A b^2+a b B-a^2 C\right)-2a^2\left(A b^2-a b B+a^2 C\right)+\frac{3}{2}a^2 b\,(-A b+a B-b C)\right)\mathrm{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2 d\,\mathrm{Cos}[c+dx]^{3/2}\sqrt{a+b\,\mathrm{Cos}[c+dx]}}+$$

$$\frac{2\left(a^4 A-13a^2 A b^2+8A b^4+8a^3 b B-4a b^3 B-5a^4 C+a^2 b^2 C\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2 d\,\mathrm{Cos}[c+dx]^{3/2}}-$$

$$\frac{2\left(8a^4 A b-28a^2 A b^3+16A b^5-3a^5 B+15a^3 b^2 B-8a b^4 B-6a^4 b C+2a^2 b^3 C\right)\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Tan}\Big[\frac{1}{2}(c+dx)\Big]}{3a^4\left(a^2-b^2\right)^2 d\sqrt{\mathrm{Cos}[c+dx]}}$$

$$\frac{1}{3 a^4 (a-b)^2 (a+b)^2 d}\left(-\frac{1}{(a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}}\right.$$

$$4 a \left(a^6 A+15 a^4 A b^2-32 a^2 A b^4+16 A b^6-9 a^5 b B+17 a^3 b^3 B-8 a b^5 B+3 a^6 C-5 a^4 b^2 C+2 a^2 b^4 C\right)$$

$$\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}$$

$$\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$4 a \left(8 a^5 A b-28 a^3 A b^3+16 a A b^5-3 a^6 B+15 a^4 b^2 B-8 a^2 b^4 B-6 a^5 b C+2 a^3 b^3 C\right)$$

$$\left(\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.\right.$$

$$\left.\text{Csc}[c+d x]\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],-\frac{2 a}{-a+b}\right]\text{Sin}\left[\frac{1}{2}(c+d x)\right]^4\right)\Big/$$

$$\left((a+b)\sqrt{\text{Cos}[c+d x]}\sqrt{a+b\,\text{Cos}[c+d x]}\right)-\left(\sqrt{\frac{(a+b)\,\text{Cot}\left[\frac{1}{2}(c+d x)\right]^2}{-a+b}}\sqrt{-\frac{(a+b)\,\text{Cos}[c+d x]\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\right.$$

$$\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}\,\text{Csc}[c+d x]\,\text{EllipticPi}\left[-\frac{a}{b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a+b\,\text{Cos}[c+d x])\,\text{Csc}\left[\frac{1}{2}(c+d x)\right]^2}{a}}}{\sqrt{2}}\right],\right.$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)\Bigg)+$$

$$2\left(8a^4Ab^2-28a^2Ab^4+16Ab^6-3a^5bB+15a^3b^3B-8ab^5B-6a^4b^2C+2a^2b^4C\right)$$

$$\Bigg(\frac{i\,\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]\sqrt{a+b\,\mathrm{Cos}[c+dx]}\;\mathrm{EllipticE}\Big[i\,\mathrm{ArcSinh}\Big[\frac{\mathrm{Sin}\left[\frac{1}{2}(c+dx)\right]}{\sqrt{\mathrm{Cos}[c+dx]}}\Big],-\frac{2a}{-a-b}\Big]\,\mathrm{Sec}[c+dx]}{b\sqrt{\mathrm{Cos}\Big[\frac{1}{2}(c+dx)\Big]^2\mathrm{Sec}[c+dx]}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]}{a+b}}}+$$

$$\frac{1}{b}2a\Bigg(\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\mathrm{Csc}[c+dx]\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\Big((a+b)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\Big)-\Bigg(a\sqrt{\frac{(a+b)\,\mathrm{Cot}\Big[\frac{1}{2}(c+dx)\Big]^2}{-a+b}}\;\sqrt{-\frac{(a+b)\,\mathrm{Cos}[c+dx]\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}$$

$$\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\Big[\frac{1}{2}(c+dx)\Big]^2}{a}}\;\mathrm{Csc}[c+dx]\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\mathrm{ArcSin}\Big[\frac{\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Csc}\left[\frac{1}{2}(c+dx)\right]^2}{a}}}{\sqrt{2}}\Big],$$

$$-\frac{2a}{-a+b}\Big]\,\mathrm{Sin}\Big[\frac{1}{2}(c+dx)\Big]^4\Bigg)\Bigg/\left(b\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\right)+\frac{\sqrt{a+b\,\mathrm{Cos}[c+dx]}\,\mathrm{Sin}[c+dx]}{b\sqrt{\mathrm{Cos}[c+dx]}}\Bigg)\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Cos}[c+dx]}\,\sqrt{a+b\,\mathrm{Cos}[c+dx]}\left(\frac{2\,\mathrm{Sec}[c+dx]\,(-8\,A\,b\,\mathrm{Sin}[c+dx]+3\,a\,B\,\mathrm{Sin}[c+dx])}{3\,a^4}+\right.$$

$$\frac{2\left(A\,b^4\,\mathrm{Sin}[c+dx]-a\,b^3\,B\,\mathrm{Sin}[c+dx]+a^2\,b^2\,C\,\mathrm{Sin}[c+dx]\right)}{3\,a^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+dx])^2}+$$

$$\Big(2\left(12\,a^2\,A\,b^4\,\mathrm{Sin}[c+dx]-8\,A\,b^6\,\mathrm{Sin}[c+dx]-9\,a^3\,b^3\,B\,\mathrm{Sin}[c+dx]+5\,a\,b^5\,B\,\mathrm{Sin}[c+dx]+6\,a^4\,b^2\,C\,\mathrm{Sin}[c+dx]-\right.$$

$$\left.2\,a^2\,b^4\,C\,\mathrm{Sin}[c+dx]\right)\Big)\Big/\left(3\,a^4\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+dx])\right)+\left.\frac{2\,A\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]}{3\,a^3}\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+dx])^4\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\mathrm{Sec}[c+dx]^{13/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{2\left(28\,a^3\,A\,b+36\,a\,A\,b^3+7\,a^4\,B+54\,a^2\,b^2\,B+15\,b^4\,B+36\,a^3\,b\,C+60\,a\,b^3\,C\right)\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticE}\left[\frac{1}{2}(c+dx),\,2\right]\sqrt{\mathrm{Sec}[c+dx]}}{15\,d}+$$

$$\frac{1}{231\,d}2\left(45\,a^4\,A+330\,a^2\,A\,b^2+77\,A\,b^4+220\,a^3\,b\,B+308\,a\,b^3\,B+55\,a^4\,C+462\,a^2\,b^2\,C+231\,b^4\,C\right)$$

$$\sqrt{\mathrm{Cos}[c+dx]}\,\mathrm{EllipticF}\left[\frac{1}{2}(c+dx),\,2\right]\sqrt{\mathrm{Sec}[c+dx]}+$$

$$\frac{2\left(28\,a^3\,A\,b+36\,a\,A\,b^3+7\,a^4\,B+54\,a^2\,b^2\,B+15\,b^4\,B+36\,a^3\,b\,C+60\,a\,b^3\,C\right)\sqrt{\mathrm{Sec}[c+dx]}\,\mathrm{Sin}[c+dx]}{15\,d}+$$

$$\frac{2\left(675\,a^4\,A+3199\,a^2\,A\,b^2+128\,A\,b^4+2761\,a^3\,b\,B+2057\,a\,b^3\,B+825\,a^4\,C+4653\,a^2\,b^2\,C\right)\mathrm{Sec}[c+dx]^{3/2}\,\mathrm{Sin}[c+dx]}{3465\,d}+$$

$$\frac{2\left(1346\,a^2\,A\,b+192\,A\,b^3+539\,a^3\,B+1353\,a\,b^2\,B+1782\,a^2\,b\,C\right)(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}[c+dx]^{5/2}\,\mathrm{Sin}[c+dx]}{3465\,d}+$$

$$\frac{2\left(27\,a^2\,A+16\,A\,b^2+55\,a\,b\,B+33\,a^2\,C\right)(a+b\,\mathrm{Cos}[c+dx])^2\,\mathrm{Sec}[c+dx]^{7/2}\,\mathrm{Sin}[c+dx]}{231\,d}+$$

$$\frac{2\,(8\,A\,b+11\,a\,B)\,(a+b\,\mathrm{Cos}[c+dx])^3\,\mathrm{Sec}[c+dx]^{9/2}\,\mathrm{Sin}[c+dx]}{99\,d}+\frac{2\,A\,(a+b\,\mathrm{Cos}[c+dx])^4\,\mathrm{Sec}[c+dx]^{11/2}\,\mathrm{Sin}[c+dx]}{11\,d}$$

$$\frac{1}{1155\,d}\left(\frac{2\left(-2156\,a^3\,A\,b-2772\,a\,A\,b^3-539\,a^4\,B-4158\,a^2\,b^2\,B-1155\,b^4\,B-2772\,a^3\,b\,C-4620\,a\,b^3\,C\right)\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]}{\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.$$
$$2\left(225\,a^4\,A+1650\,a^2\,A\,b^2+385\,A\,b^4+1100\,a^3\,b\,B+1540\,a\,b^3\,B+275\,a^4\,C+2310\,a^2\,b^2\,C+1155\,b^4\,C\right)$$
$$\left.\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}\right)+$$
$$\frac{1}{d}\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2}{15}\left(28\,a^3\,A\,b+36\,a\,A\,b^3+7\,a^4\,B+54\,a^2\,b^2\,B+15\,b^4\,B+36\,a^3\,b\,C+60\,a\,b^3\,C\right)\text{Sin}[c+d\,x]+\right.$$
$$\frac{2}{9}\text{Sec}[c+d\,x]^4\left(4\,a^3\,A\,b\,\text{Sin}[c+d\,x]+a^4\,B\,\text{Sin}[c+d\,x]\right)+$$
$$\frac{2}{77}\text{Sec}[c+d\,x]^3\left(9\,a^4\,A\,\text{Sin}[c+d\,x]+66\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+44\,a^3\,b\,B\,\text{Sin}[c+d\,x]+11\,a^4\,C\,\text{Sin}[c+d\,x]\right)+\frac{2}{45}\text{Sec}[c+d\,x]^2$$
$$\left(28\,a^3\,A\,b\,\text{Sin}[c+d\,x]+36\,a\,A\,b^3\,\text{Sin}[c+d\,x]+7\,a^4\,B\,\text{Sin}[c+d\,x]+54\,a^2\,b^2\,B\,\text{Sin}[c+d\,x]+36\,a^3\,b\,C\,\text{Sin}[c+d\,x]\right)+$$
$$\frac{2}{231}\text{Sec}[c+d\,x]\left(45\,a^4\,A\,\text{Sin}[c+d\,x]+330\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+77\,A\,b^4\,\text{Sin}[c+d\,x]+220\,a^3\,b\,B\,\text{Sin}[c+d\,x]+\right.$$
$$\left.\left.308\,a\,b^3\,B\,\text{Sin}[c+d\,x]+55\,a^4\,C\,\text{Sin}[c+d\,x]+462\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+\frac{2}{11}a^4\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{7/2}}{a+b\,\text{Cos}[c+d\,x]},x,9,0\right\}$$
$$-\frac{2\left(3\,a^2\,A+5\,A\,b^2-5\,a\,b\,B+5\,a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{5\,a^3\,d}-$$
$$\frac{2\,(A\,b-a\,B)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\,d}-$$
$$\frac{2\,b\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\text{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\text{Sec}[c+d\,x]}}{a^3\,(a+b)\,d}+$$
$$\frac{2\left(3\,a^2\,A+5\,A\,b^2-5\,a\,b\,B+5\,a^2\,C\right)\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{5\,a^3\,d}-$$
$$\frac{2\,(A\,b-a\,B)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\,d}+\frac{2\,A\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}$$

$$-\frac{1}{30 a^3 d}\left(-\left(2\left(18 a^3 A+40 a A b^2-40 a^2 b B+30 a^3 C\right) \operatorname{Cos}[c+d x]^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right](b+a \operatorname{Sec}[c+d x])\right.\right.$$

$$\left.\sqrt{1-\operatorname{Sec}[c+d x]^2} \operatorname{Sin}[c+d x]\right) \Big/ \left(b(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\right)+$$

$$\left(2\left(19 a^2 A b+45 A b^3-10 a^3 B-45 a b^2 B+45 a^2 b C\right) \operatorname{Cos}[c+d x]^2\left(\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]+\right.\right.$$

$$\left.\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right]\right)(b+a \operatorname{Sec}[c+d x]) \sqrt{1-\operatorname{Sec}[c+d x]^2} \operatorname{Sin}[c+d x]\Big) \Big/$$

$$\left(a(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2(a+b \operatorname{Cos}[c+d x])\left(1-\operatorname{Cos}[c+d x]^2\right) \sqrt{\operatorname{Sec}[c+d x]}\left(2-\operatorname{Sec}[c+d x]^2\right)}$$

$$\left(9 a^2 A b+15 A b^3-15 a b^2 B+15 a^2 b C\right) \operatorname{Cos}[2(c+d x)](b+a \operatorname{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \operatorname{Sec}[c+d x]^2-4 a b \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}+\right.$$

$$2(2 a-b) b \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}+$$

$$4 a^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d x]}\right],-1\right] \sqrt{\operatorname{Sec}[c+d x]} \sqrt{1-\operatorname{Sec}[c+d x]^2}\right) \operatorname{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\operatorname{Sec}[c+d x]}\left(\frac{2\left(3 a^2 A+5 A b^2-5 a b B+5 a^2 C\right) \operatorname{Sin}[c+d x]}{5 a^3}+\frac{2 \operatorname{Sec}[c+d x](-A b \operatorname{Sin}[c+d x]+a B \operatorname{Sin}[c+d x])}{3 a^2}+\frac{2 A \operatorname{Sec}[c+d x] \operatorname{Tan}[c+d x]}{5 a}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^{5/2}}{a+b \operatorname{Cos}[c+d x]}, x, 8, 0\right\}$$

$$\frac{2(A b-a B) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticE}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{a^2 d}+$$

$$\frac{2 A \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticF}\left[\frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{3 a d}+$$

$$\frac{2\left(A b^2-a b B+a^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \operatorname{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2}(c+d x), 2\right] \sqrt{\operatorname{Sec}[c+d x]}}{a^2(a+b) d}-$$

$$\frac{2(A b-a B) \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{a^2 d}+\frac{2 A \operatorname{Sec}[c+d x]^{3/2} \operatorname{Sin}[c+d x]}{3 a d}$$

$$\frac{1}{6 a^2 d}\left(-\left(2 \left(8 a A b-6 a^2 B\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\left(2 \left(2 a^2 A+9 A b^2-9 a b B+6 a^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)} \left(3 A b^2-3 a b B\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x]) \left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{2 (-A b+a B) \text{Sin}[c+d x]}{a^2}+\frac{2 A \text{Tan}[c+d x]}{3 a}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}, x, 7, 0\right\}$$

$$\frac{2 (b B-a C) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^2 d}+\frac{2 \left(3 A b^2-3 a b B+3 a^2 C+b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{3 b^3 d}-\frac{2 a \left(A b^2-a b B+a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{b^3 (a+b) d}+\frac{2 C \text{Sin}[c+d x]}{3 b d \sqrt{\text{Sec}[c+d x]}}$$

$$-\frac{1}{6 b d}\left(-2 C \sqrt{\text{Sec}[c+d x]} \text{Sin}[2 (c+d x)]+4 (3 A+C) \text{Cot}[c+d x] \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{-\text{Tan}[c+d x]^2}+\frac{1}{a} 2 (-3 b B+a C) \text{Cot}[c+d x] \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) \sqrt{-\text{Tan}[c+d x]^2}+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}} 6 (b B-a C) \text{Csc}[c+d x] (b+a \text{Sec}[c+d x]) \left(2 a b-2 a b \text{Sec}[c+d x]^2+2 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}-(2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}-2 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}+b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{-\text{Tan}[c+d x]^2}\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$\frac{2\left(5\,A\,b^2-5\,a\,b\,B+5\,a^2\,C+3\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,b^3\,d}-$$

$$\frac{2\left(3\,a\,A\,b^2-3\,a^2\,b\,B-b^3\,B+3\,a^3\,C+a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,b^4\,d}+$$

$$\frac{2\,a^2\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^4\,(a+b)\,d}+$$

$$\frac{2\,C\,\mathrm{Sin}[c+d\,x]}{5\,b\,d\,\mathrm{Sec}[c+d\,x]^{3/2}}+\frac{2\,(b\,B-a\,C)\,\mathrm{Sin}[c+d\,x]}{3\,b^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{30\,b^2\,d}$$

$$\Bigg(-\Bigg(2\left(-10\,b^2\,B-8\,a\,b\,C\right)\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right](b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}$$

$$\mathrm{Sin}[c+d\,x]\Bigg)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+\Bigg(2\left(-15\,A\,b^2+5\,a\,b\,B-5\,a^2\,C-9\,b^2\,C\right)$$

$$\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\right)$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\ \mathrm{Sin}[c+d\,x]\Bigg)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\left(1-\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]}\left(2-\mathrm{Sec}[c+d\,x]^2\right)}$$

$$\left(-15\,A\,b^2+15\,a\,b\,B-15\,a^2\,C-9\,b^2\,C\right)\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Bigg(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\ -\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\ -1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Bigg)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{C\,\mathrm{Sin}[c+d\,x]}{10\,b}+\frac{(b\,B-a\,C)\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^2}+\frac{C\,\mathrm{Sin}[3\,(c+d\,x)]}{10\,b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{5/2}},\ x,\ 9,\ 0\right\}$$

$$-\frac{2\left(5aAb^2-5a^2bB-3b^3B+5a^3C+3ab^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{5b^4d}+$$

$$\frac{2\left(21a^2Ab^2+7Ab^4-21a^3bB-7ab^3B+21a^4C+7a^2b^2C+5b^4C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{21b^5d}-$$

$$\frac{2a^3\left(Ab^2-abB+a^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{b^5(a+b)d}+$$

$$\frac{2C\,\text{Sin}[c+dx]}{7bd\,\text{Sec}[c+dx]^{5/2}}+\frac{2(bB-aC)\,\text{Sin}[c+dx]}{5b^2d\,\text{Sec}[c+dx]^{3/2}}+\frac{2\left(7Ab^2-7abB+7a^2C+5b^2C\right)\text{Sin}[c+dx]}{21b^3d\sqrt{\text{Sec}[c+dx]}}$$

$$-\frac{1}{210b^3d}$$

$$\Bigg(-\Big(2\left(-70Ab^3-56ab^2B+56a^2bC-50b^3C\right)\text{Cos}[c+dx]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right](b+a\,\text{Sec}[c+dx])$$

$$\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\Big)\Big/\left(b(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+$$

$$\Big(2\left(35aAb^2-35a^2bB-63b^3B+35a^3C+13ab^2C\right)\text{Cos}[c+dx]^2\Big(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]+$$

$$\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\Big)(b+a\,\text{Sec}[c+dx])\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\Big)\Big/$$

$$\left(a(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+\frac{1}{ab^2(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}\left(2-\text{Sec}[c+dx]^2\right)}$$

$$\Big(105aAb^2-105a^2bB-63b^3B+105a^3C+63ab^2C\Big)\text{Cos}[2(c+dx)](b+a\,\text{Sec}[c+dx])$$

$$\Big(-4ab+4ab\,\text{Sec}[c+dx]^2-4ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+$$

$$2(2a-b)b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+$$

$$4a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}-$$

$$2b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}\Big)\text{Sin}[c+dx]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+dx]}\left(\frac{(bB-aC)\,\text{Sin}[c+dx]}{10b^2}+\frac{\left(14Ab^2-14abB+14a^2C+13b^2C\right)\text{Sin}[2(c+dx)]}{42b^3}+\frac{(bB-aC)\,\text{Sin}[3(c+dx)]}{10b^2}+\frac{C\,\text{Sin}[4(c+dx)]}{28b}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^{5/2}}{(a+b\,\text{Cos}[c+dx])^2},x,9,0\right\}$$

$$\frac{\left(4a^2Ab-5Ab^3-2a^3B+3ab^2B-a^2bC\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2a^2A-5Ab^2+3abB-3a^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3a^2\left(a^2-b^2\right)d}+$$

$$\frac{\left(7a^2Ab^2-5Ab^4-5a^3bB+3ab^3B+3a^4C-a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a^3(a-b)(a+b)^2d}-$$

$$\frac{\left(4a^2Ab-5Ab^3-2a^3B+3ab^2B-a^2bC\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{a^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(2a^2A-5Ab^2+3abB-3a^2C\right)\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d}+\frac{\left(Ab^2-abB+a^2C\right)\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])}$$

$$\frac{1}{12 a^3 (-a+b) (a+b) d}$$

$$\left(-\left(2 \left(-28 a^3 A b+40 a A b^3+12 a^4 B-24 a^2 b^2 B+12 a^3 b C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right.\right.$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2 \left(-4 a^4 A-44 a^2 A b^2+45 A b^4+30 a^3 b B-27 a b^3 B-12 a^4 C+9 a^2 b^2 C\right) \text{Cos}[c+d x]^2\right.$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)$$

$$\left.(b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-12 a^2 A b^2+15 A b^4+6 a^3 b B-9 a b^3 B+3 a^2 b^2 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{\left(-4 a^2 A b+5 A b^3+2 a^3 B-3 a b^2 B+a^2 b C\right) \text{Sin}[c+d x]}{a^3 \left(a^2-b^2\right)}+\frac{-A b^3 \text{Sin}[c+d x]+a b^2 B \text{Sin}[c+d x]-a^2 b C \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}+\frac{2 A \text{Tan}[c+d x]}{3 a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^2}, x, 8, 0\right\}$$

$$-\frac{\left(2 a^2 A-3 A b^2+a b B-a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 \left(a^2-b^2\right) d}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a b \left(a^2-b^2\right) d}-$$

$$\frac{\left(5 a^2 A b^2-3 A b^4-3 a^3 b B+a b^3 B+a^4 C+a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{a^2 (a-b) b (a+b)^2 d}+$$

$$\frac{\left(2 a^2 A-3 A b^2+a b B-a^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a^2 \left(a^2-b^2\right) d}+\frac{\left(A b^2-a b B+a^2 C\right) \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])}$$

$$-\frac{1}{4a^2(a-b)(a+b)d}\left(-\left(2\left(4a^3A-8aAb^2+4a^2bB-4a^3C\right)\text{Cos}[c+dx]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right](b+a\,\text{Sec}[c+dx])\right.\right.$$

$$\left.\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\right)\Big/\left(b(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+$$

$$\left(2\left(10a^2Ab-9Ab^3-4a^3B+3ab^2B+a^2bC\right)\text{Cos}[c+dx]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]+\right.\right.$$

$$\left.\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\right)(b+a\,\text{Sec}[c+dx])\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\Big)\Big/$$

$$\left(a(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+\frac{1}{ab^2(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}\left(2-\text{Sec}[c+dx]^2\right)}$$

$$\left(2a^2Ab-3Ab^3+ab^2B-a^2bC\right)\text{Cos}[2(c+dx)](b+a\,\text{Sec}[c+dx])$$

$$\left(-4ab+4ab\,\text{Sec}[c+dx]^2-4ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+\right.$$

$$2(2a-b)b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+$$

$$4a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}-$$

$$\left.2b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}\right)\text{Sin}[c+dx]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+dx]}\left(\frac{\left(2a^2A-3Ab^2+abB-a^2C\right)\text{Sin}[c+dx]}{a^2\left(a^2-b^2\right)}+\frac{Ab^2\,\text{Sin}[c+dx]-abB\,\text{Sin}[c+dx]+a^2C\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}}{(a+b\,\text{Cos}[c+dx])^2},x,7,0\right\}$$

$$-\frac{\left(Ab^2-abB+a^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{ab\left(a^2-b^2\right)d}-$$

$$\frac{\left(Ab^2-abB-a^2C+2b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{b^2\left(a^2-b^2\right)d}+$$

$$\frac{\left(3a^2Ab^2-Ab^4-a^3bB-ab^3B-a^4C+3a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{a(a-b)b^2(a+b)^2d}+$$

$$\frac{\left(Ab^2-abB+a^2C\right)\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d(a+b\,\text{Cos}[c+dx])\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{4\,a\,(-a+b)\,(a+b)\,d}\left(-\left(2\,(4\,a\,A\,b-4\,a^2\,B+4\,a\,b\,C)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\,(b+a\,\mathrm{Sec}[c+d\,x])\right.\right.$$

$$\left.\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,(1-\mathrm{Cos}[c+d\,x]^2)\right)+\left(2\,(-4\,a^2\,A+3\,A\,b^2+a\,b\,B-a^2\,C)\right.$$

$$\mathrm{Cos}[c+d\,x]^2\left(\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]+\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\right)$$

$$\left.(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\right)\Big/\left(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,(1-\mathrm{Cos}[c+d\,x]^2)\right)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,(1-\mathrm{Cos}[c+d\,x]^2)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,(2-\mathrm{Sec}[c+d\,x]^2)}$$

$$(A\,b^2-a\,b\,B+a^2\,C)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$\left.2\,b^2\,\mathrm{EllipticPi}\left[-\frac{a}{b},\,-\mathrm{ArcSin}\left[\sqrt{\mathrm{Sec}[c+d\,x]}\right],\,-1\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\right)\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{(A\,b^2-a\,b\,B+a^2\,C)\,\mathrm{Sin}[c+d\,x]}{a\,b\,(a^2-b^2)}-\frac{A\,b^2\,\mathrm{Sin}[c+d\,x]-a\,b\,B\,\mathrm{Sin}[c+d\,x]+a^2\,C\,\mathrm{Sin}[c+d\,x]}{b\,(a^2-b^2)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^2\,\sqrt{\mathrm{Sec}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$\frac{(A\,b^2-a\,b\,B+3\,a^2\,C-2\,b^2\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^2\,(a^2-b^2)\,d}+$$

$$\frac{(a\,A\,b^2+a^2\,b\,B-2\,b^3\,B-3\,a^3\,C+4\,a\,b^2\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{b^3\,(a^2-b^2)\,d}-$$

$$\frac{(a^2\,A\,b^2+A\,b^4+a^3\,b\,B-3\,a\,b^3\,B-3\,a^4\,C+5\,a^2\,b^2\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{(a-b)\,b^3\,(a+b)^2\,d}-$$

$$\frac{(A\,b^2-a\,b\,B+a^2\,C)\,\mathrm{Sin}[c+d\,x]}{b\,(a^2-b^2)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{4(a-b)b(a+b)d}\left(-\left(2\left(4aAb-4b^2B+4abC\right)\text{Cos}[c+dx]^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right](b+a\,\text{Sec}[c+dx])\right.\right.$$

$$\left.\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\right)\Big/\left(b(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+\left(2\left(-Ab^2+abB+a^2C-2b^2C\right)\right.$$

$$\text{Cos}[c+dx]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\right)$$

$$\left.(b+a\,\text{Sec}[c+dx])\sqrt{1-\text{Sec}[c+dx]^2}\,\text{Sin}[c+dx]\right)\Big/\left(a(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\right)+$$

$$\frac{1}{ab^2(a+b\,\text{Cos}[c+dx])\left(1-\text{Cos}[c+dx]^2\right)\sqrt{\text{Sec}[c+dx]}\left(2-\text{Sec}[c+dx]^2\right)}$$

$$\left(Ab^2-abB+3a^2C-2b^2C\right)\text{Cos}[2(c+dx)](b+a\,\text{Sec}[c+dx])$$

$$\left(-4ab+4ab\,\text{Sec}[c+dx]^2-4ab\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+\right.$$

$$2(2a-b)b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}+$$

$$4a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}-$$

$$\left.2b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+dx]}\right],-1\right]\sqrt{\text{Sec}[c+dx]}\sqrt{1-\text{Sec}[c+dx]^2}\right)\text{Sin}[c+dx]\Bigg)+$$

$$\frac{\sqrt{\text{Sec}[c+dx]}\left(\frac{\left(Ab^2-abB+a^2C\right)\text{Sin}[c+dx]}{b^2\left(-a^2+b^2\right)}-\frac{-aAb^2\,\text{Sin}[c+dx]+a^2bB\,\text{Sin}[c+dx]-a^3C\,\text{Sin}[c+dx]}{b^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2}{(a+b\,\text{Cos}[c+dx])^2\,\text{Sec}[c+dx]^{3/2}},x,8,0\right\}$$

$$-\frac{\left(aAb^2-3a^2bB+2b^3B+5a^3C-4ab^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticE}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{b^3\left(a^2-b^2\right)d}+$$

$$\frac{\left(3a^2Ab^2-6Ab^4-9a^3bB+12ab^3B+15a^4C-16a^2b^2C-2b^4C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticF}\left[\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{3b^4\left(a^2-b^2\right)d}-$$

$$\frac{a\left(a^2Ab^2-3Ab^4-3a^3bB+5ab^3B+5a^4C-7a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\,\text{EllipticPi}\left[\frac{2b}{a+b},\frac{1}{2}(c+dx),2\right]\sqrt{\text{Sec}[c+dx]}}{(a-b)b^4(a+b)^2d}-$$

$$\frac{\left(Ab^2-abB+a^2C\right)\text{Sin}[c+dx]}{b\left(a^2-b^2\right)d(a+b\,\text{Cos}[c+dx])\,\text{Sec}[c+dx]^{3/2}}+\frac{\left(3Ab^2-3abB+5a^2C-2b^2C\right)\text{Sin}[c+dx]}{3b^2\left(a^2-b^2\right)d\sqrt{\text{Sec}[c+dx]}}$$

$$\frac{1}{12 b^2 (-a+b) (a+b) d}$$

$$\left(-\left(2 \left(12 A b^3-12 a b^2 B+8 a^2 b C+4 b^3 C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/\left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\right.$$

$$\left(2 \left(-3 a A b^2-3 a^2 b B+6 b^3 B+5 a^3 C-8 a b^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right) (b+a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right)\Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(3 a A b^2-9 a^2 b B+6 b^3 B+15 a^3 C-12 a b^2 C\right) \text{Cos}[2 (c+d x)] (b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2 (2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\right)+$$

$$\frac{\sqrt{\text{Sec}[c+d x]} \left(\frac{a \left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{b^3 \left(a^2-b^2\right)}+\frac{-a^2 A b^2 \text{Sin}[c+d x]+a^3 b B \text{Sin}[c+d x]-a^4 C \text{Sin}[c+d x]}{b^3 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])}+\frac{C \text{Sin}[2 (c+d x)]}{3 b^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x])^2 \text{Sec}[c+d x]^{5/2}}, x, 9, 0\right\}$$

$$\frac{\left(15 a^2 A b^2-10 A b^4-25 a^3 b B+20 a b^3 B+35 a^4 C-24 a^2 b^2 C-6 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{5 b^4 \left(a^2-b^2\right) d}-$$

$$\frac{1}{3 b^5 \left(a^2-b^2\right) d} \left(9 a^3 A b^2-12 a A b^4-15 a^4 b B+16 a^2 b^3 B+2 b^5 B+21 a^5 C-20 a^3 b^2 C-4 a b^4 C\right)$$

$$\sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}+$$

$$\frac{a^2 \left(3 a^2 A b^2-5 A b^4-5 a^3 b B+7 a b^3 B+7 a^4 C-9 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{(a-b) b^5 (a+b)^2 d}-$$

$$\frac{\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x]) \text{Sec}[c+d x]^{5/2}}+\frac{\left(5 A b^2-5 a b B+7 a^2 C-2 b^2 C\right) \text{Sin}[c+d x]}{5 b^2 \left(a^2-b^2\right) d \text{Sec}[c+d x]^{3/2}}-$$

$$\frac{\left(3 a A b^2-5 a^2 b B+2 b^3 B+7 a^3 C-4 a b^2 C\right) \text{Sin}[c+d x]}{3 b^3 \left(a^2-b^2\right) d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{60\,(a-b)\,b^3\,(a+b)\,d}\Bigg(-\Big(2\,\big(60\,a\,A\,b^3-40\,a^2\,b^2\,B-20\,b^4\,B+56\,a^3\,b\,C+4\,a\,b^3\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\Big(2\,\big(15\,a^2\,A\,b^2-30\,A\,b^4-25\,a^3\,b\,B+40\,a\,b^3\,B+35\,a^4\,C-32\,a^2\,b^2\,C-18\,b^4\,C\big)\,\mathrm{Cos}[c+d\,x]^2$$

$$\Big(\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]+\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\Big)$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\big(2-\mathrm{Sec}[c+d\,x]^2\big)}$$

$$\big(45\,a^2\,A\,b^2-30\,A\,b^4-75\,a^3\,b\,B+60\,a\,b^3\,B+105\,a^4\,C-72\,a^2\,b^2\,C-18\,b^4\,C\big)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Big(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Big)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(-\frac{\big(10\,a^2\,A\,b^2-10\,a^3\,b\,B+10\,a^4\,C-a^2\,b^2\,C+b^4\,C\big)\,\mathrm{Sin}[c+d\,x]}{10\,b^4\,\big(a^2-b^2\big)}+$$

$$\frac{a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^4\,b\,B\,\mathrm{Sin}[c+d\,x]+a^5\,C\,\mathrm{Sin}[c+d\,x]}{b^4\,\big(a^2-b^2\big)\,(a+b\,\mathrm{Cos}[c+d\,x])}+$$

$$\frac{(b\,B-2\,a\,C)\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^3}+\frac{C\,\mathrm{Sin}[3\,(c+d\,x)]}{10\,b^2}\Bigg)$$

Incorrect antiderivative:

$$\Big\{\frac{\big(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\big)\,\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\,x,\,10,\,0\Big\}$$

$$\frac{1}{4 a^4 \left(a^2-b^2\right)^2 d}\left(24 a^4 A b-65 a^2 A b^3+35 A b^5-8 a^5 B+29 a^3 b^2 B-15 a b^4 B-9 a^4 b C+3 a^2 b^3 C\right)$$

$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}+$$

$$\frac{\left(8 a^4 A-61 a^2 A b^2+35 A b^4+33 a^3 b B-15 a b^3 B-21 a^4 C+3 a^2 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}}{12 a^3 \left(a^2-b^2\right)^2 d}+$$

$$\frac{1}{4 a^4 (a-b)^2 (a+b)^3 d}\left(63 a^4 A b^2-86 a^2 A b^4+35 A b^6-35 a^5 b B+38 a^3 b^3 B-15 a b^5 B+15 a^6 C-6 a^4 b^2 C+3 a^2 b^4 C\right)$$

$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}-$$

$$\frac{\left(24 a^4 A b-65 a^2 A b^3+35 A b^5-8 a^5 B+29 a^3 b^2 B-15 a b^4 B-9 a^4 b C+3 a^2 b^3 C\right)\sqrt{\text{Sec}[c+d x]}\ \text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(8 a^4 A-61 a^2 A b^2+35 A b^4+33 a^3 b B-15 a b^3 B-21 a^4 C+3 a^2 b^2 C\right)\text{Sec}[c+d x]^{3/2}\ \text{Sin}[c+d x]}{12 a^3 \left(a^2-b^2\right)^2 d}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right)\text{Sec}[c+d x]^{3/2}\ \text{Sin}[c+d x]}{2 a \left(a^2-b^2\right) d\ (a+b\ \text{Cos}[c+d x])^2}+\frac{\left(13 a^2 A b^2-7 A b^4-9 a^3 b B+3 a b^3 B+5 a^4 C+a^2 b^2 C\right)\text{Sec}[c+d x]^{3/2}\ \text{Sin}[c+d x]}{4 a^2 \left(a^2-b^2\right)^2 d\ (a+b\ \text{Cos}[c+d x])}$$

$$\frac{1}{48 a^4 (a-b)^2 (a+b)^2 d}$$

$$\Bigg(-\Big(2\left(160 a^5 A b-512 a^3 A b^3+280 a A b^5-48 a^6 B+240 a^4 b^2 B-120 a^2 b^4 B-96 a^5 b C+24 a^3 b^3 C\right)\text{Cos}[c+d x]^2$$

$$\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right](b+a\ \text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]\Big)\Big/$$

$$\left(b\ (a+b\ \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a\ (a+b\ \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)}$$

$$2\left(16 a^6 A+328 a^4 A b^2-641 a^2 A b^4+315 A b^6-168 a^5 b B+285 a^3 b^3 B-135 a b^5 B+48 a^6 C-57 a^4 b^2 C+27 a^2 b^4 C\right)\text{Cos}[c+d x]^2$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)(b+a\ \text{Sec}[c+d x])$$

$$\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]+\frac{1}{a b^2\ (a+b\ \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}\left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(72 a^4 A b^2-195 a^2 A b^4+105 A b^6-24 a^5 b B+87 a^3 b^3 B-45 a b^5 B-27 a^4 b^2 C+9 a^2 b^4 C\right)\text{Cos}[2(c+d x)]\ (b+a\ \text{Sec}[c+d x])$$

$$\Big(-4 a b+4 a b\ \text{Sec}[c+d x]^2-4 a b\ \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$

$$2(2 a-b) b\ \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2\ \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}-$$

$$2 b^2\ \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}\Big)\text{Sin}[c+d x]\Bigg)+\frac{1}{d}$$

$$\sqrt{\text{Sec}[c+d x]}\Bigg(\frac{\left(-24 a^4 A b+65 a^2 A b^3-35 A b^5+8 a^5 B-29 a^3 b^2 B+15 a b^4 B+9 a^4 b C-3 a^2 b^3 C\right)\text{Sin}[c+d x]}{4 a^4 \left(a^2-b^2\right)^2}+$$

$$\frac{-A b^3\ \text{Sin}[c+d x]+a b^2 B\ \text{Sin}[c+d x]-a^2 b C\ \text{Sin}[c+d x]}{2 a^2 \left(a^2-b^2\right)(a+b\ \text{Cos}[c+d x])^2}+$$

$$\Big(-15 a^2 A b^3\ \text{Sin}[c+d x]+9 A b^5\ \text{Sin}[c+d x]+11 a^3 b^2 B\ \text{Sin}[c+d x]-5 a b^4 B\ \text{Sin}[c+d x]-$$

$$7 a^4 b C\ \text{Sin}[c+d x]+a^2 b^3 C\ \text{Sin}[c+d x]\Big)\Big/\left(4 a^3 \left(a^2-b^2\right)^2 (a+b\ \text{Cos}[c+d x])\right)+\frac{2 A\ \text{Tan}[c+d x]}{3 a^3}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^3},\ x,\ 9,\ 0\right\}$$

$$-\frac{\left(8\,a^4\,A-29\,a^2\,A\,b^2+15\,A\,b^4+9\,a^3\,b\,B-3\,a\,b^3\,B-5\,a^4\,C-a^2\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticE}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(11\,a^2\,A\,b^2-5\,A\,b^4-7\,a^3\,b\,B+a\,b^3\,B+3\,a^4\,C+3\,a^2\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticF}\left[\frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}}{4\,a^2\,b\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{1}{4\,a^3\,(a-b)^2\,b\,(a+b)^3\,d}\left(35\,a^4\,A\,b^2-38\,a^2\,A\,b^4+15\,A\,b^6-15\,a^5\,b\,B+6\,a^3\,b^3\,B-3\,a\,b^5\,B+3\,a^6\,C+10\,a^4\,b^2\,C-a^2\,b^4\,C\right)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]}\ \mathrm{EllipticPi}\left[\frac{2\,b}{a+b},\ \frac{1}{2}\,(c+d\,x),\ 2\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{\left(8\,a^4\,A-29\,a^2\,A\,b^2+15\,A\,b^4+9\,a^3\,b\,B-3\,a\,b^3\,B-5\,a^4\,C-a^2\,b^2\,C\right)\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{4\,a^3\,\left(a^2-b^2\right)^2\,d}+$$

$$\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{2\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\frac{\left(11\,a^2\,A\,b^2-5\,A\,b^4-7\,a^3\,b\,B+a\,b^3\,B+3\,a^4\,C+3\,a^2\,b^2\,C\right)\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{4\,a^2\,\left(a^2-b^2\right)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])}$$

$$-\frac{1}{16 a^3 (a-b)^2 (a+b)^2 d}\left(-\left(2\left(16 a^5 A-80 a^3 A b^2+40 a A b^4+32 a^4 b B-8 a^2 b^3 B-16 a^5 C-8 a^3 b^2 C\right)\right.\right.$$

$$\text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right](b+a \text{Sec}[c+d x])$$

$$\left.\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]\right)\Big/\left(b(a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\left(2\left(56 a^4 A b-95 a^2 A b^3+45 A b^5-16 a^5 B+19 a^3 b^2 B-9 a b^4 B+9 a^4 b C-3 a^2 b^3 C\right) \text{Cos}[c+d x]^2\right.$$

$$\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)$$

$$\left.(b+a \text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]\right)\Big/\left(a(a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+$$

$$\frac{1}{a b^2 (a+b \text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}\left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(8 a^4 A b-29 a^2 A b^3+15 A b^5+9 a^3 b^2 B-3 a b^4 B-5 a^4 b C-a^2 b^3 C\right) \text{Cos}[2(c+d x)](b+a \text{Sec}[c+d x])$$

$$\left(-4 a b+4 a b \text{Sec}[c+d x]^2-4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+\right.$$

$$2(2 a-b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}-$$

$$\left.\left.2 b^2 \text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}\right)\text{Sin}[c+d x]\right)+$$

$$\frac{1}{d}\sqrt{\text{Sec}[c+d x]}\left(\frac{\left(8 a^4 A-29 a^2 A b^2+15 A b^4+9 a^3 b B-3 a b^3 B-5 a^4 C-a^2 b^2 C\right)\text{Sin}[c+d x]}{4 a^3\left(a^2-b^2\right)^2}+\right.$$

$$\frac{A b^2 \text{Sin}[c+d x]-a b B \text{Sin}[c+d x]+a^2 C \text{Sin}[c+d x]}{2 a\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])^2}+$$

$$\left.\frac{11 a^2 A b^2 \text{Sin}[c+d x]-5 A b^4 \text{Sin}[c+d x]-7 a^3 b B \text{Sin}[c+d x]+a b^3 B \text{Sin}[c+d x]+3 a^4 C \text{Sin}[c+d x]+3 a^2 b^2 C \text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2(a+b \text{Cos}[c+d x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}}{(a+b \text{Cos}[c+d x])^3}, x, 8, 0\right\}$$

$$-\frac{\left(9 a^2 A b^2-3 A b^4-5 a^3 b B-a b^3 B+a^4 C+5 a^2 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{4 a^2 b\left(a^2-b^2\right)^2 d}-$$

$$\frac{\left(7 a^2 A b^2-A b^4-3 a^3 b B-3 a b^3 B-a^4 C+7 a^2 b^2 C\right)\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}}{4 a b^2\left(a^2-b^2\right)^2 d}+$$

$$\frac{1}{4 a^2 (a-b)^2 b^2 (a+b)^3 d}\left(15 a^4 A b^2-6 a^2 A b^4+3 A b^6-3 a^5 b B-10 a^3 b^3 B+a b^5 B-a^6 C+10 a^4 b^2 C+3 a^2 b^4 C\right)$$

$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x), 2\right]\sqrt{\text{Sec}[c+d x]}+$$

$$\frac{\left(A b^2-a b B+a^2 C\right)\text{Sin}[c+d x]}{2 a\left(a^2-b^2\right) d(a+b \text{Cos}[c+d x])^2\sqrt{\text{Sec}[c+d x]}}+\frac{\left(9 a^2 A b^2-3 A b^4-5 a^3 b B-a b^3 B+a^4 C+5 a^2 b^2 C\right)\text{Sin}[c+d x]}{4 a^2\left(a^2-b^2\right)^2 d(a+b \text{Cos}[c+d x])\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{16 a^2 (a-b)^2 (a+b)^2 d}$$

$$\left(-\left(2 \left(-32 a^3 A b + 8 a A b^3 + 16 a^4 B + 8 a^2 b^2 B - 24 a^3 b C\right) \text{Cos}[c+d x]^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/ \left(b (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) + \right.$$

$$\left(2 \left(16 a^4 A - 19 a^2 A b^2 + 9 A b^4 - 9 a^3 b B + 3 a b^3 B + 5 a^4 C + a^2 b^2 C\right) \text{Cos}[c+d x]^2 \left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] + \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right]\right) (b + a \text{Sec}[c+d x]) \sqrt{1-\text{Sec}[c+d x]^2} \text{Sin}[c+d x]\right) \Big/$$

$$\left(a (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right)\right) + \frac{1}{a b^2 (a+b \text{Cos}[c+d x]) \left(1-\text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]} \left(2-\text{Sec}[c+d x]^2\right)}$$

$$\left(-9 a^2 A b^2 + 3 A b^4 + 5 a^3 b B + a b^3 B - a^4 C - 5 a^2 b^2 C\right) \text{Cos}[2 (c+d x)] (b + a \text{Sec}[c+d x])$$

$$\left(-4 a b + 4 a b \text{Sec}[c+d x]^2 - 4 a b \text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} + \right.$$

$$2 (2 a - b) b \text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} +$$

$$4 a^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2} -$$

$$\left. 2 b^2 \text{EllipticPi}\left[-\frac{a}{b}, -\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right], -1\right] \sqrt{\text{Sec}[c+d x]} \sqrt{1-\text{Sec}[c+d x]^2}\right) \text{Sin}[c+d x]\Bigg) +$$

$$\frac{1}{d} \sqrt{\text{Sec}[c+d x]} \left(\frac{\left(9 a^2 A b^2 - 3 A b^4 - 5 a^3 b B - a b^3 B + a^4 C + 5 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a^2 b \left(a^2-b^2\right)^2} - \right.$$

$$\frac{A b^2 \text{Sin}[c+d x] - a b B \text{Sin}[c+d x] + a^2 C \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2} +$$

$$\left. \frac{-7 a^2 A b^2 \text{Sin}[c+d x] + A b^4 \text{Sin}[c+d x] + 3 a^3 b B \text{Sin}[c+d x] + 3 a b^3 B \text{Sin}[c+d x] + a^4 C \text{Sin}[c+d x] - 7 a^2 b^2 C \text{Sin}[c+d x]}{4 a b \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A + B \text{Cos}[c+d x] + C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x])^3 \sqrt{\text{Sec}[c+d x]}}, x, 8, 0\right\}$$

$$\frac{\left(5 a^2 A b^2 + A b^4 - a^3 b B - 5 a b^3 B - 3 a^4 C + 9 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticE}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 a b^2 \left(a^2-b^2\right)^2 d} +$$

$$\frac{\left(3 a^2 A b^2 + 3 A b^4 + a^3 b B - 7 a b^3 B + 3 a^4 C - 5 a^2 b^2 C + 8 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \text{EllipticF}\left[\frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]}}{4 b^3 \left(a^2-b^2\right)^2 d} -$$

$$\frac{1}{4 a (a-b)^2 b^3 (a+b)^3 d} \left(3 a^4 A b^2 + 10 a^2 A b^4 - A b^6 + a^5 b B - 10 a^3 b^3 B - 3 a b^5 B + 3 a^6 C - 6 a^4 b^2 C + 15 a^2 b^4 C\right)$$

$$\sqrt{\text{Cos}[c+d x]} \text{EllipticPi}\left[\frac{2 b}{a+b}, \frac{1}{2} (c+d x), 2\right] \sqrt{\text{Sec}[c+d x]} -$$

$$\frac{\left(A b^2 - a b B + a^2 C\right) \text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b \text{Cos}[c+d x])^2 \sqrt{\text{Sec}[c+d x]}} - \frac{\left(5 a^2 A b^2 + A b^4 - a^3 b B - 5 a b^3 B - 3 a^4 C + 9 a^2 b^2 C\right) \text{Sin}[c+d x]}{4 a b \left(a^2-b^2\right)^2 d (a+b \text{Cos}[c+d x]) \sqrt{\text{Sec}[c+d x]}}$$

$$-\frac{1}{16\,a\,(a-b)^2\,b\,(a+b)^2\,d}\left(-\left(2\left(-16\,a^3\,A\,b-8\,a\,A\,b^3+24\,a^2\,b^2\,B-8\,a^3\,b\,C-16\,a\,b^3\,C\right)\operatorname{Cos}[c+d\,x]^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\right.\right.$$

$$\left.(b+a\operatorname{Sec}[c+d\,x])\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\,\operatorname{Sin}[c+d\,x]\right)\Big/\left(b\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\right)+$$

$$\left(2\left(9\,a^2\,A\,b^2-3\,A\,b^4-5\,a^3\,b\,B-a\,b^3\,B+a^4\,C+5\,a^2\,b^2\,C\right)\operatorname{Cos}[c+d\,x]^2\left(\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]+\right.\right.$$

$$\left.\left.\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\right)(b+a\operatorname{Sec}[c+d\,x])\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\,\operatorname{Sin}[c+d\,x]\right)\Big/$$

$$\left(a\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\right)+\frac{1}{a\,b^2\,(a+b\operatorname{Cos}[c+d\,x])\left(1-\operatorname{Cos}[c+d\,x]^2\right)\sqrt{\operatorname{Sec}[c+d\,x]}\left(2-\operatorname{Sec}[c+d\,x]^2\right)}$$

$$\left(-5\,a^2\,A\,b^2-A\,b^4+a^3\,b\,B+5\,a\,b^3\,B+3\,a^4\,C-9\,a^2\,b^2\,C\right)\operatorname{Cos}[2\,(c+d\,x)]\,(b+a\operatorname{Sec}[c+d\,x])$$

$$\left(-4\,a\,b+4\,a\,b\operatorname{Sec}[c+d\,x]^2-4\,a\,b\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}+\right.$$

$$2\,(2\,a-b)\,b\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}+$$

$$4\,a^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}-$$

$$\left.\left.2\,b^2\operatorname{EllipticPi}\left[-\frac{a}{b},-\operatorname{ArcSin}\left[\sqrt{\operatorname{Sec}[c+d\,x]}\right],-1\right]\sqrt{\operatorname{Sec}[c+d\,x]}\sqrt{1-\operatorname{Sec}[c+d\,x]^2}\right)\operatorname{Sin}[c+d\,x]\right)+$$

$$\frac{1}{d}\sqrt{\operatorname{Sec}[c+d\,x]}\left(\frac{\left(-5\,a^2\,A\,b^2-A\,b^4+a^3\,b\,B+5\,a\,b^3\,B+3\,a^4\,C-9\,a^2\,b^2\,C\right)\operatorname{Sin}[c+d\,x]}{4\,a\,b^2\left(a^2-b^2\right)^2}+\right.$$

$$\frac{a\,A\,b^2\operatorname{Sin}[c+d\,x]-a^2\,b\,B\operatorname{Sin}[c+d\,x]+a^3\,C\operatorname{Sin}[c+d\,x]}{2\,b^2\left(a^2-b^2\right)(a+b\operatorname{Cos}[c+d\,x])^2}+$$

$$\left.\frac{3\,a^2\,A\,b^2\operatorname{Sin}[c+d\,x]+3\,A\,b^4\operatorname{Sin}[c+d\,x]+a^3\,b\,B\operatorname{Sin}[c+d\,x]-7\,a\,b^3\,B\operatorname{Sin}[c+d\,x]-5\,a^4\,C\operatorname{Sin}[c+d\,x]+11\,a^2\,b^2\,C\operatorname{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2(a+b\operatorname{Cos}[c+d\,x])}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\operatorname{Cos}[c+d\,x]+C\operatorname{Cos}[c+d\,x]^2}{(a+b\operatorname{Cos}[c+d\,x])^3\operatorname{Sec}[c+d\,x]^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{\left(a^2\,A\,b^2+5\,A\,b^4+3\,a^3\,b\,B-9\,a\,b^3\,B-15\,a^4\,C+29\,a^2\,b^2\,C-8\,b^4\,C\right)\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticE}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}}{4\,b^3\left(a^2-b^2\right)^2 d}+$$

$$\frac{1}{4\,b^4\left(a^2-b^2\right)^2 d}\left(a^3\,A\,b^2-7\,a\,A\,b^4+3\,a^4\,b\,B-5\,a^2\,b^3\,B+8\,b^5\,B-15\,a^5\,C+33\,a^3\,b^2\,C-24\,a\,b^4\,C\right)$$

$$\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticF}\left[\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}-\frac{1}{4\,(a-b)^2\,b^4\,(a+b)^3\,d}$$

$$\left(a^4\,A\,b^2-10\,a^2\,A\,b^4-3\,A\,b^6+3\,a^5\,b\,B-6\,a^3\,b^3\,B+15\,a\,b^5\,B-15\,a^6\,C+38\,a^4\,b^2\,C-35\,a^2\,b^4\,C\right)$$

$$\sqrt{\operatorname{Cos}[c+d\,x]}\operatorname{EllipticPi}\left[\frac{2\,b}{a+b},\frac{1}{2}(c+d\,x),2\right]\sqrt{\operatorname{Sec}[c+d\,x]}-$$

$$\frac{\left(A\,b^2-a\,b\,B+a^2\,C\right)\operatorname{Sin}[c+d\,x]}{2\,b\left(a^2-b^2\right)d\,(a+b\operatorname{Cos}[c+d\,x])^2\operatorname{Sec}[c+d\,x]^{3/2}}+\frac{\left(3\,a^2\,A\,b^2+3\,A\,b^4+a^3\,b\,B-7\,a\,b^3\,B-5\,a^4\,C+11\,a^2\,b^2\,C\right)\operatorname{Sin}[c+d\,x]}{4\,b^2\left(a^2-b^2\right)^2 d\,(a+b\operatorname{Cos}[c+d\,x])\sqrt{\operatorname{Sec}[c+d\,x]}}$$

$$\frac{1}{16\,(a-b)^2\,b^2\,(a+b)^2\,d}\Bigg(-\Big(2\,\big(-24\,a\,A\,b^3+8\,a^2\,b^2\,B+16\,b^4\,B+8\,a^3\,b\,C-32\,a\,b^3\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\big(b\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+$$

$$\Big(2\,\big(5\,a^2\,A\,b^2+A\,b^4-a^3\,b\,B-5\,a\,b^3\,B+5\,a^4\,C-7\,a^2\,b^2\,C+8\,b^4\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\Big(\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]+$$

$$\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\Big)\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/$$

$$\big(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\big)+\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\big(2-\mathrm{Sec}[c+d\,x]^2\big)}$$

$$\big(-a^2\,A\,b^2-5\,A\,b^4-3\,a^3\,b\,B+9\,a\,b^3\,B+15\,a^4\,C-29\,a^2\,b^2\,C+8\,b^4\,C\big)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Big(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},\,-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],\,-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Big)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(-\frac{\big(-a^2\,A\,b^2-5\,A\,b^4-3\,a^3\,b\,B+9\,a\,b^3\,B+7\,a^4\,C-13\,a^2\,b^2\,C\big)\,\mathrm{Sin}[c+d\,x]}{4\,b^3\,\big(a^2-b^2\big)^2}+$$

$$\frac{-a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]+a^3\,b\,B\,\mathrm{Sin}[c+d\,x]-a^4\,C\,\mathrm{Sin}[c+d\,x]}{2\,b^3\,\big(a^2-b^2\big)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\big(a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]-7\,a\,A\,b^4\,\mathrm{Sin}[c+d\,x]-5\,a^4\,b\,B\,\mathrm{Sin}[c+d\,x]+11\,a^2\,b^3\,B\,\mathrm{Sin}[c+d\,x]+$$

$$9\,a^5\,C\,\mathrm{Sin}[c+d\,x]-15\,a^3\,b^2\,C\,\mathrm{Sin}[c+d\,x]\big)\Big/\Big(4\,b^3\,\big(a^2-b^2\big)^2\,(a+b\,\mathrm{Cos}[c+d\,x])\Big)\Bigg)$$

Incorrect antiderivative:

$$\Big\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{5/2}},\,x,\,9,\,0\Big\}$$

$$-\frac{1}{4\,b^4\,\big(a^2-b^2\big)^2\,d}\big(3\,a^3\,A\,b^2-9\,a\,A\,b^4-15\,a^4\,b\,B+29\,a^2\,b^3\,B-8\,b^5\,B+35\,a^5\,C-65\,a^3\,b^2\,C+24\,a\,b^4\,C\big)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticE}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{12\,b^5\,\big(a^2-b^2\big)^2\,d}$$

$$\big(9\,a^4\,A\,b^2-15\,a^2\,A\,b^4+24\,A\,b^6-45\,a^5\,b\,B+99\,a^3\,b^3\,B-72\,a\,b^5\,B+105\,a^6\,C-223\,a^4\,b^2\,C+128\,a^2\,b^4\,C+8\,b^6\,C\big)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticF}\Big[\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}-\frac{1}{4\,(a-b)^2\,b^5\,(a+b)^3\,d}$$

$$a\,\big(3\,a^4\,A\,b^2-6\,a^2\,A\,b^4+15\,A\,b^6-15\,a^5\,b\,B+38\,a^3\,b^3\,B-35\,a\,b^5\,B+35\,a^6\,C-86\,a^4\,b^2\,C+63\,a^2\,b^4\,C\big)$$

$$\sqrt{\mathrm{Cos}[c+d\,x]}\,\mathrm{EllipticPi}\Big[\frac{2\,b}{a+b},\,\frac{1}{2}\,(c+d\,x),\,2\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}-$$

$$\frac{\big(A\,b^2-a\,b\,B+a^2\,C\big)\,\mathrm{Sin}[c+d\,x]}{2\,b\,\big(a^2-b^2\big)\,d\,(a+b\,\mathrm{Cos}[c+d\,x])^2\,\mathrm{Sec}[c+d\,x]^{5/2}}+\frac{\big(a^2\,A\,b^2+5\,A\,b^4+3\,a^3\,b\,B-9\,a\,b^3\,B-7\,a^4\,C+13\,a^2\,b^2\,C\big)\,\mathrm{Sin}[c+d\,x]}{4\,b^2\,\big(a^2-b^2\big)^2\,d\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\big(3\,a^2\,A\,b^2-21\,A\,b^4-15\,a^3\,b\,B+33\,a\,b^3\,B+35\,a^4\,C-61\,a^2\,b^2\,C+8\,b^4\,C\big)\,\mathrm{Sin}[c+d\,x]}{12\,b^3\,\big(a^2-b^2\big)^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$-\frac{1}{48\,(a-b)^2\,b^3\,(a+b)^2\,d}\Bigg(-\Big(2\,\big(-24\,a^2\,A\,b^3-48\,A\,b^5-24\,a^3\,b^2\,B+96\,a\,b^4\,B+56\,a^4\,b\,C-112\,a^2\,b^3\,C-16\,b^5\,C\big)\,\mathrm{Cos}[c+d\,x]^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},$$

$$-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\,(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\Big(b\,(a+b\,\mathrm{Cos}[c+d\,x])$$

$$\big(1-\mathrm{Cos}[c+d\,x]^2\big)\Big)+\Big(2\,\big(3\,a^3\,A\,b^2+15\,a\,A\,b^4-15\,a^4\,b\,B+21\,a^2\,b^3\,B-24\,b^5\,B+35\,a^5\,C-73\,a^3\,b^2\,C+56\,a\,b^4\,C\big)$$

$$\mathrm{Cos}[c+d\,x]^2\,\Big(\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]+\mathrm{EllipticPi}\Big[-\frac{a}{b},-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\Big)$$

$$(b+a\,\mathrm{Sec}[c+d\,x])\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\,\mathrm{Sin}[c+d\,x]\Big)\Big/\Big(a\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\Big)+$$

$$\frac{1}{a\,b^2\,(a+b\,\mathrm{Cos}[c+d\,x])\,\big(1-\mathrm{Cos}[c+d\,x]^2\big)\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\big(2-\mathrm{Sec}[c+d\,x]^2\big)}$$

$$\big(9\,a^3\,A\,b^2-27\,a\,A\,b^4-45\,a^4\,b\,B+87\,a^2\,b^3\,B-24\,b^5\,B+105\,a^5\,C-195\,a^3\,b^2\,C+72\,a\,b^4\,C\big)\,\mathrm{Cos}[2\,(c+d\,x)]\,(b+a\,\mathrm{Sec}[c+d\,x])$$

$$\Big(-4\,a\,b+4\,a\,b\,\mathrm{Sec}[c+d\,x]^2-4\,a\,b\,\mathrm{EllipticE}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$2\,(2\,a-b)\,b\,\mathrm{EllipticF}\Big[\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}+$$

$$4\,a^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}-$$

$$2\,b^2\,\mathrm{EllipticPi}\Big[-\frac{a}{b},-\mathrm{ArcSin}\Big[\sqrt{\mathrm{Sec}[c+d\,x]}\Big],-1\Big]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\sqrt{1-\mathrm{Sec}[c+d\,x]^2}\Big)\,\mathrm{Sin}[c+d\,x]\Bigg)+$$

$$\frac{1}{d}\sqrt{\mathrm{Sec}[c+d\,x]}\,\Bigg(\frac{a\,\big(3\,a^2\,A\,b^2-9\,A\,b^4-7\,a^3\,b\,B+13\,a\,b^3\,B+11\,a^4\,C-17\,a^2\,b^2\,C\big)\,\mathrm{Sin}[c+d\,x]}{4\,b^4\,\big(a^2-b^2\big)^2}+$$

$$\frac{a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^4\,b\,B\,\mathrm{Sin}[c+d\,x]+a^5\,C\,\mathrm{Sin}[c+d\,x]}{2\,b^4\,\big(a^2-b^2\big)\,(a+b\,\mathrm{Cos}[c+d\,x])^2}+$$

$$\Big(-5\,a^4\,A\,b^2\,\mathrm{Sin}[c+d\,x]+11\,a^2\,A\,b^4\,\mathrm{Sin}[c+d\,x]+9\,a^5\,b\,B\,\mathrm{Sin}[c+d\,x]-15\,a^3\,b^3\,B\,\mathrm{Sin}[c+d\,x]-$$

$$13\,a^6\,C\,\mathrm{Sin}[c+d\,x]+19\,a^4\,b^2\,C\,\mathrm{Sin}[c+d\,x]\Big)\Big/\Big(4\,b^4\,\big(a^2-b^2\big)^2\,(a+b\,\mathrm{Cos}[c+d\,x])\Big)+\frac{C\,\mathrm{Sin}[2\,(c+d\,x)]}{3\,b^3}\Bigg)$$

Incorrect antiderivative:

$$\Big\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^3\,\mathrm{Sec}[c+d\,x]^{7/2}},\ x,\ 10,\ 0\Big\}$$

$$\frac{1}{20 b^5 \left(a^2-b^2\right)^2 d}\left(75 a^4 A b^2-145 a^2 A b^4+40 A b^6-175 a^5 b B+325 a^3 b^3 B-120 a b^5 B+315 a^6 C-561 a^4 b^2 C+192 a^2 b^4 C+24 b^6 C\right)$$
$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticE}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}-\frac{1}{12 b^6 \left(a^2-b^2\right)^2 d}$$
$$\left(45 a^5 A b^2-99 a^3 A b^4+72 a A b^6-105 a^6 b B+223 a^4 b^3 B-128 a^2 b^5 B-8 b^7 B+189 a^7 C-387 a^5 b^2 C+192 a^3 b^4 C+24 a b^6 C\right)$$
$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticF}\left[\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}+\frac{1}{4 (a-b)^2 b^6 (a+b)^3 d}$$
$$a^2\left(15 a^4 A b^2-38 a^2 A b^4+35 A b^6-35 a^5 b B+86 a^3 b^3 B-63 a b^5 B+63 a^6 C-150 a^4 b^2 C+99 a^2 b^4 C\right)$$
$$\sqrt{\text{Cos}[c+d x]}\ \text{EllipticPi}\left[\frac{2 b}{a+b},\frac{1}{2}(c+d x),2\right]\sqrt{\text{Sec}[c+d x]}-$$
$$\frac{\left(A b^2-a b B+a^2 C\right)\text{Sin}[c+d x]}{2 b \left(a^2-b^2\right) d (a+b\,\text{Cos}[c+d x])^2\,\text{Sec}[c+d x]^{7/2}}-\frac{\left(a^2 A b^2-7 A b^4-5 a^3 b B+11 a b^3 B+9 a^4 C-15 a^2 b^2 C\right)\text{Sin}[c+d x]}{4 b^2 \left(a^2-b^2\right)^2 d (a+b\,\text{Cos}[c+d x])\,\text{Sec}[c+d x]^{5/2}}+$$
$$\frac{\left(15 a^2 A b^2-45 A b^4-35 a^3 b B+65 a b^3 B+63 a^4 C-101 a^2 b^2 C+8 b^4 C\right)\text{Sin}[c+d x]}{20 b^3 \left(a^2-b^2\right)^2 d\,\text{Sec}[c+d x]^{3/2}}-$$
$$\frac{\left(15 a^3 A b^2-33 a A b^4-35 a^4 b B+61 a^2 b^3 B-8 b^5 B+63 a^5 C-105 a^3 b^2 C+24 a b^4 C\right)\text{Sin}[c+d x]}{12 b^4 \left(a^2-b^2\right)^2 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{240 (a-b)^2 b^4 (a+b)^2 d}$$
$$\Bigg(-\Big(2\left(120 a^3 A b^3-480 a A b^5-280 a^4 b^2 B+560 a^2 b^4 B+80 b^6 B+504 a^5 b C-768 a^3 b^3 C-96 a b^5 C\right)\text{Cos}[c+d x]^2$$
$$\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right](b+a\,\text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]\Big)\Big/$$
$$\left(b (a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\right)+\frac{1}{a (a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)}$$
$$2\left(75 a^4 A b^2-105 a^2 A b^4+120 A b^6-175 a^5 b B+365 a^3 b^3 B-280 a b^5 B+315 a^6 C-633 a^4 b^2 C+336 a^2 b^4 C+72 b^6 C\right)$$
$$\text{Cos}[c+d x]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]+\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\right)$$
$$(b+a\,\text{Sec}[c+d x])\sqrt{1-\text{Sec}[c+d x]^2}\ \text{Sin}[c+d x]+$$
$$\frac{1}{a b^2 (a+b\,\text{Cos}[c+d x])\left(1-\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}\left(2-\text{Sec}[c+d x]^2\right)}$$
$$\left(225 a^4 A b^2-435 a^2 A b^4+120 A b^6-525 a^5 b B+975 a^3 b^3 B-360 a b^5 B+945 a^6 C-1683 a^4 b^2 C+576 a^2 b^4 C+72 b^6 C\right)$$
$$\text{Cos}[2(c+d x)](b+a\,\text{Sec}[c+d x])$$
$$\Big(-4 a b+4 a b\,\text{Sec}[c+d x]^2-4 a b\,\text{EllipticE}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$
$$2(2 a-b) b\,\text{EllipticF}\left[\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}+$$
$$4 a^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}-$$
$$2 b^2\,\text{EllipticPi}\left[-\frac{a}{b},-\text{ArcSin}\left[\sqrt{\text{Sec}[c+d x]}\right],-1\right]\sqrt{\text{Sec}[c+d x]}\sqrt{1-\text{Sec}[c+d x]^2}\Big)\text{Sin}[c+d x]\Bigg)+\frac{1}{d}$$
$$\sqrt{\text{Sec}[c+d x]}\Bigg(-\frac{\left(35 a^4 A b^2-65 a^2 A b^4-55 a^5 b B+85 a^3 b^3 B+75 a^6 C-107 a^4 b^2 C+4 a^2 b^4 C-2 b^6 C\right)\text{Sin}[c+d x]}{20 b^5 \left(a^2-b^2\right)^2}+$$
$$\frac{-a^4 A b^2\,\text{Sin}[c+d x]+a^5 b B\,\text{Sin}[c+d x]-a^6 C\,\text{Sin}[c+d x]}{2 b^5 \left(a^2-b^2\right)(a+b\,\text{Cos}[c+d x])^2}+$$
$$\Big(9 a^5 A b^2\,\text{Sin}[c+d x]-15 a^3 A b^4\,\text{Sin}[c+d x]-13 a^6 b B\,\text{Sin}[c+d x]+19 a^4 b^3 B\,\text{Sin}[c+d x]+17 a^7 C\,\text{Sin}[c+d x]-$$
$$23 a^5 b^2 C\,\text{Sin}[c+d x]\Big)\Big/\left(4 b^5 \left(a^2-b^2\right)^2 (a+b\,\text{Cos}[c+d x])\right)+\frac{(b B-3 a C)\,\text{Sin}[2(c+d x)]}{3 b^4}+\frac{C\,\text{Sin}[3(c+d x)]}{10 b^3}\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{11/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{315\,a^4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$
$$2\,(a+b)\,\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+57\,a^3\,b\,B+24\,a\,b^3\,B+189\,a^4\,C-42\,a^2\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$
$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{315\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$
$$2\,\left(147\,a^4\,A+111\,a^3\,A\,b-24\,a^2\,A\,b^2-4\,a\,A\,b^3-16\,A\,b^4+75\,a^4\,B+57\,a^3\,b\,B+6\,a^2\,b^2\,B+24\,a\,b^3\,B+189\,a^4\,C+147\,a^3\,b\,C-42\,a^2\,b^2\,C\right)$$
$$\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$
$$\frac{2\,\left(13\,a^2\,A\,b+8\,A\,b^3+75\,a^3\,B-12\,a\,b^2\,B+21\,a^2\,b\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{315\,a^3\,d}+$$
$$\frac{2\,\left(49\,a^2\,A-6\,A\,b^2+9\,a\,b\,B+63\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{315\,a^2\,d}+$$
$$\frac{2\,(A\,b+9\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{63\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{9/2}\,\mathrm{Sin}[c+d\,x]}{9\,d}+$$
$$\frac{2\,\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+57\,a^3\,b\,B+24\,a\,b^3\,B+189\,a^4\,C-42\,a^2\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^4\,d}$$

$$\frac{1}{315\,a^4\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(-16\,A\,b^4+57\,a^3\,b\,B+24\,a\,b^3\,B-6\,a^2\,b^2\,(4\,A+7\,C)+21\,a^4\,(7\,A+9\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(-16\,A\,b^4+57\,a^3\,b\,B+24\,a\,b^3\,B-6\,a^2\,b^2\,(4\,A+7\,C)+21\,a^4\,(7\,A+9\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(-16\,A\,b^3+12\,a\,b^2\,(A+2\,B)-6\,a^2\,b\,(6\,A+3\,B+7\,C)+3\,a^3\,(49\,A+25\,B+63\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(147\,a^4\,A-24\,a^2\,A\,b^2-16\,A\,b^4+57\,a^3\,b\,B+24\,a\,b^3\,B+189\,a^4\,C-42\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{315\,a^4}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^3\,(A\,b\,\text{Sin}[c+d\,x]+9\,a\,B\,\text{Sin}[c+d\,x])}{63\,a}+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\left(49\,a^2\,A\,\text{Sin}[c+d\,x]-6\,A\,b^2\,\text{Sin}[c+d\,x]+9\,a\,b\,B\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^2}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\left(13\,a^2\,A\,b\,\text{Sin}[c+d\,x]+8\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]-12\,a\,b^2\,B\,\text{Sin}[c+d\,x]+21\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^3}$$

$$\left.+\frac{2}{9}\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a^3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B+35\,a^2\,b\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(25\,a^3\,A+19\,a^2\,A\,b+2\,a\,A\,b^2+8\,A\,b^3+63\,a^3\,B+49\,a^2\,b\,B-14\,a\,b^2\,B+35\,a^3\,C+35\,a^2\,b\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(25\,a^2\,A-4\,A\,b^2+7\,a\,b\,B+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a^2\,d}+$$

$$\frac{2\,(A\,b+7\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B+35\,a^2\,b\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^3\,d}$$

$$\frac{1}{105\,a^3\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B+a^2\,b\,(19\,A+35\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B+a^2\,b\,(19\,A+35\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\,+$$

$$a\,(a+b)\,\left(8\,A\,b^2-2\,a\,b\,(3\,A+7\,B)+a^2\,(25\,A+63\,B+35\,C)\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(19\,a^2\,A\,b+8\,A\,b^3+63\,a^3\,B-14\,a\,b^2\,B+35\,a^2\,b\,C\right)\,\text{Sin}[c+d\,x]}{105\,a^3}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,(A\,b\,\text{Sin}[c+d\,x]+7\,a\,B\,\text{Sin}[c+d\,x])}{35\,a}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\text{Sin}[c+d\,x]-4\,A\,b^2\,\text{Sin}[c+d\,x]+7\,a\,b\,B\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{105\,a^2}+$$

$$\left.\frac{2}{7}\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{7/2},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{15\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,(a+b)\,\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B+15\,a^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$

$$\frac{1}{15\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,\left(9\,a^2\,A+7\,a\,A\,b-2\,A\,b^2+5\,a^2\,B+5\,a\,b\,B+15\,a^2\,C+15\,a\,b\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$

$$\frac{2\,(A\,b+5\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{15\,a\,d}+\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B+15\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,a^2\,d}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{2\,\left(9\,a^2\,A-2\,A\,b^2+5\,a\,b\,B+15\,a^2\,C\right)\mathrm{Sin}[c+d\,x]}{15\,a^2}+\right.$$

$$\left.\frac{2\,\mathrm{Sec}[c+d\,x]\,(A\,b\,\mathrm{Sin}[c+d\,x]+5\,a\,B\,\mathrm{Sin}[c+d\,x])}{15\,a}+\frac{2}{5}\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)+$$

$$\left(2\left(-\frac{3\,a\,A}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{2\,A\,b^2}{15\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{b\,B}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\right.\right.$$

$$\frac{a\,C}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{2\,A\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{a\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{b^2\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{3\,A\,b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,A\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\left.\left.\frac{b^2\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b\,C\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left((a+b)\,\left(-\left(-2\,A\,b^2+5\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+\right.\right.$$

$$\left.\left.a\,(-2\,A\,b+a\,(9\,A+5\,(B+3\,C)))\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\right)\right.$$

$$\left(\left(\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\,\text{Sec}[c+d\,x]-\right.$$

$$\left.\left.\left(-2\,A\,b^2+5\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\left(\frac{1}{15\,a^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}}\right.\right.$$

$$b\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]\left((a+b)\left(-\left(-2\,A\,b^2+5\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\right.\right.\right.\right.$$

$$\left.\left.\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+a\,(-2\,A\,b+a\,(9\,A+5\,(B+3\,C)))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\left(\left(\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\,\text{Sec}[c+d\,x]-\right.$$

$$\left.\left(-2\,A\,b^2+5\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^4\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)-$$

$$\frac{1}{5\,a^2\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left((a+b)\left(-\left(-2\,A\,b^2+5\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+\right.\right.$$

$$\left.a\,(-2\,A\,b+a\,(9\,A+5\,(B+3\,C)))\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\left(\left(\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\,\text{Sec}[c+d\,x]-\right.$$

$$\left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg)+$$

$$\frac{1}{15 a^2 \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2} \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}}$$

$$\Bigg((a+b) \Bigg(-\left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]+$$

$$a (-2 A b+a (9 A+5 (B+3 C))) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{-a+b}{a+b}\right]\Bigg)$$

$$\left(\text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2} \sqrt{\frac{(a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^2}{a+b}} \text{Sec}[c+d x]-$$

$$\left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2} (c+d x)\right] \text{Sec}[c+d x] \text{Sin}\left[\frac{1}{2} (c+d x)\right]+\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x] \text{Tan}[c+d x]\right)+$$

$$\frac{1}{15 a^2 \sqrt{a+b \text{Cos}[c+d x]} \left(\text{Sec}\left[\frac{1}{2} (c+d x)\right]^2\right)^{3/2}} 2 \sqrt{\text{Cos}\left[\frac{1}{2} (c+d x)\right]^2 \text{Sec}[c+d x]}$$

$$\Bigg(-\frac{1}{2} \left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^6+$$

$$b \left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{Cos}[c+d x] \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right]+$$

$$\left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Sin}[c+d x] \text{Tan}\left[\frac{1}{2} (c+d x)\right]-$$

$$2 \left(-2 A b^2+5 a b B+3 a^2 (3 A+5 C)\right) \text{Cos}[c+d x] (a+b \text{Cos}[c+d x]) \text{Sec}\left[\frac{1}{2} (c+d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2+$$

$$\frac{3}{2}(a+b)\left(-\left(-2Ab^2+5abB+3a^2(3A+5C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a(-2Ab+a(9A+5(B+3C)))\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\sqrt{\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\,\text{Sec}[c+dx]$$

$$\left(-\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Sin}[c+dx]+\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)+\frac{1}{2\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}$$

$$(a+b)\left(-\left(-2Ab^2+5abB+3a^2(3A+5C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a(-2Ab+a(9A+5(B+3C)))\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)\left(\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}$$

$$\text{Sec}[c+dx]\left(-\frac{b\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Sin}[c+dx]}{a+b}+\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{a+b}\right)+$$

$$(a+b)\left(\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}$$

$$\text{Sec}[c+dx]\left(\frac{a(-2Ab+a(9A+5(B+3C)))\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}-\right.$$

$$\left.\frac{\left(-2Ab^2+5abB+3a^2(3A+5C)\right)\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\right)+$$

$$(a+b)\left(-\left(-2Ab^2+5abB+3a^2(3A+5C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a(-2Ab+a(9A+5(B+3C)))\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\left.\left.\left.\left(\text{Cos}[c+dx]\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\,\text{Sec}[c+dx]\,\text{Tan}[c+dx]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+dx]}\,\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^{5/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{3\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a\,A+A\,b+3\,a\,B+3\,b\,B+3\,a\,C-3\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{4\,b\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\;+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}+\frac{2\,(A\,b+3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,(A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]}{3\,a}+\frac{2}{3}\,A\,\text{Tan}[c+d\,x]\right)}{d}\;+$$

$$\left(2\left(-\frac{A\,b}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{a\,B}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{b\,C}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{a\,A\,\sqrt{\text{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{A\,b^2\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{a\,C\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\left.\frac{A\,b^2\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{3\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b\,B\,\text{Cos}[2\,(c+d\,x)]\,\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(-12\,a\,b\,C\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-12\,a\,b\,C\,\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+6\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$3\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)\Bigg)\Bigg/\Bigg(3\,a\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}$$

$$\Bigg(\frac{1}{3\,a\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}}\,b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]$$

$$\Bigg(-12\,a\,b\,C\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$2\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3$$

$$a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-12\,a\,b\,C\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\Big[$$

$$-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\Big]\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+6\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)-$$

$$\frac{1}{a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\left(\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}}\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-12\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,(a+b)\,(A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3$$

$$a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-12\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\Big[$$

$$-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\Big]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$\left.a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\right)+$$

$$\frac{1}{3\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}}\,2\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}$$

$$\left(-\frac{1}{2}\,a\,A\,b\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{1}{2}\,A\,b^2\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{3}{2}\,a^2\,B\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{3}{2}\,a\,b\,B\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\right.$$

$$\frac{6\,a\,b\,C\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}-$$

$$\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}\,(a+b)\,(A\,b+3\,a\,B)\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}$$

$$a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(\frac{\mathrm{Cos}[c+d\,x]\,\mathrm{Sin}[c+d\,x]}{(1+\mathrm{Cos}[c+d\,x])^2}-\frac{\mathrm{Sin}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}\right)-$$

$$\frac{6\,a\,b\,C\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}-$$

$$\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}\,(a+b)\,(A\,b+3\,a\,B)\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)+\frac{1}{\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}}$$

$$a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\;\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\left(-\frac{b\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}+\frac{(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sin}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])^2}\right)-2\,(a+b)\,(A\,b+3\,a\,B)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-12\,a\,b\,C\,\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,A\,b^2\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+9\,a\,b\,B\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$\frac{1}{\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}}\,6\,a\,b\,C\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}6\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+\frac{5}{2}\,a\,A\,b\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{5}{2}\,A\,b^2\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$\frac{15}{2}\,a^2\,B\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4-\frac{15}{2}\,a\,b\,B\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^4+$$

$$\frac{a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{6\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}+$$

$$\frac{6\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\,(A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^4\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{3\,a\sqrt{a+b\,\text{Cos}[c+d\,x]}\left(\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}}$$

$$\left(-12\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-\right.$$

$$2\,(a+b)\,(A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,a\,(b\,(A+3\,B-3\,C)+a\,(A+3\,(B+C)))\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2-$$

$$a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$12\,a\,b\,C\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$a\,A\,b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2},\,x,\,8,\,0\right\}$$

$$-\frac{1}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\,(2\,A-C)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a\,A+A\,b+a\,B-b\,B-a\,C)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(2\,b\,B+a\,C)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,A\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}-\frac{(2\,A-C)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{d\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{2 A \sqrt{a+b \operatorname{Cos}[c+d x]}\ \sqrt{\operatorname{Sec}[c+d x]}\ \operatorname{Sin}[c+d x]}{d}+$$

$$\frac{1}{d\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}\sqrt{\frac{1}{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\Bigg(-2 a A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+a C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+4 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-$$

$$2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+2 a A \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-2 A b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-a C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-4 b B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-2 a C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$4 b B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-2 a C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b)(2 A-C) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$2(b(A-B)+a(A+B-C)) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b \operatorname{Cos}[c+d x]}\ \left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right)\sqrt{\operatorname{Sec}[c+d x]},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{4\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,(a+b)\,(4\,b\,B+a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,(4\,a\,A-4\,A\,b-4\,a\,B+a\,C-2\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{2\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(8\,A\,b^2+4\,a\,b\,B-a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{2\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{(4\,b\,B+a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}\;\text{Sin}[2\,(c+d\,x)]}{4\,d}\;+$$

$$\Bigg(-4\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$8\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+2\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+4\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$a^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-a\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,A\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\;\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$8\,a\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;-2\,a^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\;\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$8 b^2 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 16 A b^2 \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$8 a b B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 2 a^2 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$8 b^2 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - (a+b)(4 b B+a C) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2 b (2 b (2 A+C)-a (4 A-4 B+C)) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right) \Big/$$

$$\left(4 b d \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b \text{Cos}[c+d x]}\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{\sqrt{\text{Sec}[c+d x]}}, x, 9, 0\right\}$$

$$\frac{1}{24 b^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}} (a+b) \left(24 A b^2+6 a b B-3 a^2 C+16 b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]}$$

$$\sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}-$$

$$\frac{1}{12 b d \sqrt{a+b \operatorname{Cos}[c+d x]}} \left(24 a A b-6 a b B+12 b^2 B-a^2 C+14 a b C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{1}{4 b^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$\left(8 a A b^2-2 a^2 b B+8 b^3 B+a^3 C+4 a b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticPi}\left[-1, \operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{C \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{3 d \operatorname{Sec}[c+d x]^{3/2}}+$$

$$\frac{(6 b B+a C) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{12 b d \sqrt{\operatorname{Sec}[c+d x]}}+\frac{\left(24 A b^2+6 a b B-3 a^2 C+16 b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b^2 d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \left(\frac{1}{12} C \operatorname{Sin}[c+d x]+\frac{(6 b B+a C) \operatorname{Sin}[2(c+d x)]}{24 b}+\frac{1}{12} C \operatorname{Sin}[3(c+d x)]\right)}{d}+$$

$$\Bigg(-24 a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-24 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-6 a^2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-6 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$3 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+3 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$48 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+12 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-6 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+32 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$24 a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-24 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+6 a^2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-6 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$3 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+3 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$48 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-12 a^2 b B \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$48\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+6\,a^3\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$24\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+48\,a\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$12\,a^2\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+48\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6\,a^3\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+24\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)\left(-24 A b^2-6 a b B+3 a^2 C-16 b^2 C\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$2 b\left(-12 b^2 B+a^2 C-2 a b(12 A-3 B+7 C)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(24 b^2 d\sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{a+b \text{Cos}[c+d x]}\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right)}{\text{Sec}[c+d x]^{3/2}}, x, 10, 0\right\}$$

$$\frac{1}{192 b^3 d\sqrt{a+b \text{Cos}[c+d x]}}(a+b)\left(48 a A b^2-24 a^2 b B+128 b^3 B+15 a^3 C+28 a b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+\frac{1}{96 b^2 d\sqrt{a+b \text{Cos}[c+d x]}}$$

$$\left(48 a A b^2-96 A b^3+8 a^2 b B-112 a b^2 B-5 a^3 C-2 a^2 b C+36 a b^2 C-72 b^3 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}-\frac{1}{32 b^3 d\sqrt{a+b \text{Cos}[c+d x]}}$$

$$\left(16 a^2 A b^2-64 A b^4-8 a^3 b B-32 a b^3 B+5 a^4 C+8 a^2 b^2 C-48 b^4 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+\frac{C\sqrt{a+b \text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{4 d \text{Sec}[c+d x]^{5/2}}+$$

$$\frac{(8 b B+a C)\sqrt{a+b \text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{24 b d \text{Sec}[c+d x]^{3/2}}+\frac{\left(48 A b^2+8 a b B-5 a^2 C+36 b^2 C\right)\sqrt{a+b \text{Cos}[c+d x]}\,\text{Sin}[c+d x]}{96 b^2 d\sqrt{\text{Sec}[c+d x]}}+$$

$$\frac{\left(48 a A b^2-24 a^2 b B+128 b^3 B+15 a^3 C+28 a b^2 C\right)\sqrt{a+b \text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{192 b^3 d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{(8\,b\,B+a\,C)\,\mathrm{Sin}[c+d\,x]}{96\,b}+\frac{\left(48\,A\,b^2+8\,a\,b\,B-5\,a^2\,C+48\,b^2\,C\right)\,\mathrm{Sin}[2\,(c+d\,x)]}{192\,b^2}+\frac{(8\,b\,B+a\,C)\,\mathrm{Sin}[3\,(c+d\,x)]}{96\,b}+\frac{1}{32}\,C\,\mathrm{Sin}[4\,(c+d\,x)]\right)-$$

$$\left(48\,a^2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+48\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,a^3\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,a^2\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+\right.$$

$$128\,a\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+128\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+15\,a^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+15\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$28\,a^2\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+28\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-96\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+48\,a^2\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$256\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-30\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-56\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-48\,a^2\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$48\,a\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,a^3\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,a^2\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-128\,a\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$128\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^4\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+15\,a^3\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-28\,a^2\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$28\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+96\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-384\,A\,b^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$48\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-192\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+48\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$288\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+96\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$384\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-48\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$192\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$48\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-288\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)\left(-24 a^2 b B+128 b^3 B+15 a^3 C+4 a b^2 (12 A+7 C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$2 b\left(5 a^3 C+2 a^2 b(-4 B+C)+24 b^3 (4 A+3 C)-4 a b^2 (12 A-28 B+9 C)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg) \Bigg/$$

$$\left(192 b^3 d \sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\text{Sec}[c+d x]^{11/2}, x, 9, 0\right\}$$

$$-\frac{1}{315 a^3 d \sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$2(a+b)\left(147 a^4 A+33 a^2 A b^2+8 A b^4+246 a^3 b B-18 a b^3 B+189 a^4 C+63 a^2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} + \frac{1}{315 a^2 d \sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$2\left(147 a^4 A+186 a^3 A b+33 a^2 A b^2+2 a A b^3+8 A b^4+75 a^4 B+246 a^3 b B+153 a^2 b^2 B-18 a b^3 B+189 a^4 C+252 a^3 b C+63 a^2 b^2 C\right)$$

$$\sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} +$$

$$\frac{2\left(88 a^2 A b-4 A b^3+75 a^3 B+9 a b^2 B+126 a^2 b C\right) \sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Sec}[c+d x]^{3/2}\,\text{Sin}[c+d x]}{315 a^2 d} +$$

$$\frac{2\left(49 a^2 A+3 A b^2+72 a b B+63 a^2 C\right) \sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Sec}[c+d x]^{5/2}\,\text{Sin}[c+d x]}{315 a d} +$$

$$\frac{2(A b+3 a B) \sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Sec}[c+d x]^{7/2}\,\text{Sin}[c+d x]}{21 d} + \frac{2 A (a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^{9/2}\,\text{Sin}[c+d x]}{9 d} +$$

$$\frac{2\left(147 a^4 A+33 a^2 A b^2+8 A b^4+246 a^3 b B-18 a b^3 B+189 a^4 C+63 a^2 b^2 C\right) \sqrt{a+b\,\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{315 a^3 d}$$

$$\frac{1}{315\,a^3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(11\,A+21\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(8\,A\,b^3-6\,a\,b^2\,(A+3\,B)+3\,a^2\,b\,(13\,A+57\,B+21\,C)+3\,a^3\,(49\,A+25\,B+63\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(147\,a^4\,A+33\,a^2\,A\,b^2+8\,A\,b^4+246\,a^3\,b\,B-18\,a\,b^3\,B+189\,a^4\,C+63\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{315\,a^3}+\right.$$

$$\frac{2}{63}\,\text{Sec}[c+d\,x]^3\,(10\,A\,b\,\text{Sin}[c+d\,x]+9\,a\,B\,\text{Sin}[c+d\,x])+$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+72\,a\,b\,B\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{315\,a}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\left(88\,a^2\,A\,b\,\text{Sin}[c+d\,x]-4\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]+9\,a\,b^2\,B\,\text{Sin}[c+d\,x]+126\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)}{315\,a^2}$$

$$\left.+\frac{2}{9}\,a\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{9/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{105\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B+140\,a^2\,b\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+\;\frac{1}{105\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(25\,a^3\,A+82\,a^2\,A\,b+51\,a\,A\,b^2-6\,A\,b^3+63\,a^3\,B+84\,a^2\,b\,B+21\,a\,b^2\,B+35\,a^3\,C+140\,a^2\,b\,C+105\,a\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{2\,\left(25\,a^2\,A+3\,A\,b^2+42\,a\,b\,B+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,a\,d}\;+$$

$$\frac{2\,(3\,A\,b+7\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}\;+\;\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}\;+$$

$$\frac{2\,\left(82\,a^2\,A\,b-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B+140\,a^2\,b\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\sqrt{\text{Sec}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a^2\,d}$$

$$\frac{1}{105\,a^2\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(\left(-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B+2\,a^2\,b\,(41\,A+70\,C)\right)$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,-$$

$$(a+b)\,\left(-6\,A\,b^3+63\,a^3\,B+21\,a\,b^2\,B+2\,a^2\,b\,(41\,A+70\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$a\,(a+b)\,\left(-6\,A\,b^2+a^2\,(25\,A+63\,B+35\,C)+3\,a\,b\,(19\,A+7\,(B+5\,C))\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\;+$$

$$\frac{1}{d}\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\Bigg(-\frac{2\,\left(-82\,a^2\,A\,b+6\,A\,b^3-63\,a^3\,B-21\,a\,b^2\,B-140\,a^2\,b\,C\right)\,\text{Sin}[c+d\,x]}{105\,a^2}\;+$$

$$\frac{2}{35}\,\text{Sec}[c+d\,x]^2\,(8\,A\,b\,\text{Sin}[c+d\,x]+7\,a\,B\,\text{Sin}[c+d\,x])\;+$$

$$\frac{2\,\text{Sec}[c+d\,x]\,\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+3\,A\,b^2\,\text{Sin}[c+d\,x]+42\,a\,b\,B\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{105\,a}\;+$$

$$\frac{2}{7}\,a\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\Bigg)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{7/2},\,x,\,9,\,0\right\}$$

$$-\frac{1}{15\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B+15\,a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{15\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(9\,a^2\,A+12\,a\,A\,b+3\,A\,b^2+5\,a^2\,B+20\,a\,b\,B+15\,b^2\,B+15\,a^2\,C+30\,a\,b\,C-15\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{4\,b^2\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(3\,A\,b+5\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B+15\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,a\,d}$$

$$\frac{1}{15\,a\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-9\,a^3\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-9\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-3\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$3\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-20\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-20\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-15\,a^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$15\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+18\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+6\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+40\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$30\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+9\,a^3\,A\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-9\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+3\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$3\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+20\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-20\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+15\,a^3\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$15\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-30\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(3\,A\,b^2+20\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\left(3\,b^2\,(A+5\,B-5\,C)+2\,a\,b\,(6\,A+10\,B+15\,C)+a^2\,(9\,A+5\,(B+3\,C))\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(9\,a^2\,A+3\,A\,b^2+20\,a\,b\,B+15\,a^2\,C\right)\text{Sin}[c+d\,x]}{15\,a}+\right.$$

$$\left.\frac{2}{15}\text{Sec}[c+d\,x]\,(6\,A\,b\,\text{Sin}[c+d\,x]+5\,a\,B\,\text{Sin}[c+d\,x])+\frac{2}{5}a\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{3/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{5/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\,(8\,A\,b+6\,a\,B-3\,b\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{3\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,\left(a^2\,A+4\,a\,A\,b+3\,A\,b^2+3\,a^2\,B+6\,a\,b\,B-3\,b^2\,B+3\,a^2\,C-6\,a\,b\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,b\,(2\,b\,B+3\,a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,(A\,b+a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}-$$

$$\frac{(8\,A\,b+6\,a\,B-3\,b\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-8\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-8\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-6\,a^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+3\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+3\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+16\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$12\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-6\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+8\,a\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-8\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$6\,a^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-6\,a\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-3\,a\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+3\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$12\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-18\,a\,b\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$12\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-18\,a\,b\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\,(8\,A\,b+6\,a\,B-3\,b\,C)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\left(3\,b^2\,(A-B)+2\,a\,b\,(2\,A+3\,B-3\,C)+a^2\,(A+3\,(B+C))\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2}{3}(4\,A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]+\frac{2}{3}\,a\,A\,\text{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{3/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\,(8\,a\,A-4\,b\,B-5\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(4\,a^2\,A+8\,a\,A\,b-4\,A\,b^2+4\,a^2\,B-8\,a\,b\,B-4\,a^2\,C+a\,b\,C-2\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(8\,A\,b^2+12\,a\,b\,B+3\,a^2\,C+4\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\ \sqrt{1+\mathrm{Cos}[c+d\,x]}\ \sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ -\ \frac{b\,(4\,A-C)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}\ +$$

$$\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}[c+d\,x]}\ \mathrm{Sin}[c+d\,x]}{d}\ -\ \frac{(8\,a\,A-4\,b\,B-5\,a\,C)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\ \sqrt{\mathrm{Sec}[c+d\,x]}\ \left(2\,a\,A\,\mathrm{Sin}[c+d\,x]+\frac{1}{4}\,b\,C\,\mathrm{Sin}[2\,(c+d\,x)]\right)}{d}\ +$$

$$\Bigg(8\,a^2\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+8\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$4\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-5\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$8\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+10\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-8\,a^2\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+8\,a\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$4\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+5\,a^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-5\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$16\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\ +24\,a\,b\,B\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+8 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$16 A b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+24 a b B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+8 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)(8 a A-4 b B-5 a C)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$2\left(4 a^2(A+B-C)-2 b^2(2 A+C)+a b(8 A-8 B+C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(4 d\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d x])^{3/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{24 b d\sqrt{a+b\,\text{Cos}[c+d x]}}(a+b)\left(24 A b^2+30 a b B+3 a^2 C+16 b^2 C\right)\sqrt{\text{Cos}[c+d x]}$$

$$\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+$$

$$\frac{1}{12 d\sqrt{a+b\,\text{Cos}[c+d x]}}\left(24 a^2 A-48 a A b-24 a^2 B+6 a b B-12 b^2 B+7 a^2 C-26 a b C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+\frac{1}{4 b d\sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$\left(24 a A b^2+6 a^2 b B+8 b^3 B-a^3 C+12 a b^2 C\right)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}+\frac{(2 b B+a C)\sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Sin}[c+d x]}{4 d\sqrt{\text{Sec}[c+d x]}}+$$

$$\frac{C(a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sin}[c+d x]}{3 d\sqrt{\text{Sec}[c+d x]}}+\frac{\left(24 A b^2+30 a b B+3 a^2 C+16 b^2 C\right)\sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b d\sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}[c+d x]}\left(\frac{1}{12} b C\,\text{Sin}[c+d x]+\frac{1}{24}(6 b B+7 a C)\,\text{Sin}[2(c+d x)]+\frac{1}{12} b C\,\text{Sin}[3(c+d x)]\right)}{d}+$$

$$\Bigg(-24 a A b^2\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-24 A b^3\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-30 a^2 b B\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-30 a b^2 B\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$3 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 3 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] - 16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] +$$

$$48 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 60 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 6 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + 32 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3 +$$

$$24 a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 24 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 30 a^2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 30 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$3 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 3 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 + 16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - 16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5 +$$

$$144 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 36 a^2 b B \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$48 b^3 B \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 6 a^3 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$72 a b^2 C \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 144 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 - b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$36 a^2 b B \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+48\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$6\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+72\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(24\,A\,b^2+30\,a\,b\,B+3\,a^2\,C+16\,b^2\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\left(12\,b^2\,B+a^2\,(-24\,A+24\,B-7\,C)+2\,a\,b\,(24\,A-3\,B+13\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(24\,b\,d\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)}{\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 10,\ 0\right\}$$

$$\frac{1}{192\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(240\,a\,A\,b^2+24\,a^2\,b\,B+128\,b^3\,B-9\,a^3\,C+156\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;-\;\frac{1}{96\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(192\,a^2\,A\,b-48\,a\,A\,b^2+96\,A\,b^3-56\,a^2\,b\,B+208\,a\,b^2\,B-3\,a^3\,C+114\,a^2\,b\,C-36\,a\,b^2\,C+72\,b^3\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{1}{32\,b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(48\,a^2\,A\,b^2+64\,A\,b^4-8\,a^3\,b\,B+96\,a\,b^3\,B+3\,a^4\,C+24\,a^2\,b^2\,C+48\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\;+$$

$$\frac{(8\,b\,B+3\,a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{24\,d\,\text{Sec}[c+d\,x]^{3/2}}+\frac{C\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{4\,d\,\text{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\left(48\,A\,b^2+56\,a\,b\,B+3\,a^2\,C+36\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Sin}[c+d\,x]}{96\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{\left(240\,a\,A\,b^2+24\,a^2\,b\,B+128\,b^3\,B-9\,a^3\,C+156\,a\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\;\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b^2\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{96}\,(8\,b\,B+9\,a\,C)\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\frac{\left(48\,A\,b^2+56\,a\,b\,B+3\,a^2\,C+48\,b^2\,C\right)\text{Sin}[2\,(c+d\,x)]}{192\,b}+\frac{1}{96}\,(8\,b\,B+9\,a\,C)\,\text{Sin}[3\,(c+d\,x)]+\frac{1}{32}\,b\,C\,\text{Sin}[4\,(c+d\,x)]\right)+$$

$$\left(-240\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-240\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-\right.$$

$$128\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-128\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,a^4\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+9\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$156\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-156\,a\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+480\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+48\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$256\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-18\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+312\,a\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+240\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$240\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+128\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$128\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-9\,a^4\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+9\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+156\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$156\, a\, b^3\, C\, \mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5 + 288\, a^2\, A\, b^2\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} + 384\, A\, b^4\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} -$$

$$48\, a^3\, b\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} + 576\, a\, b^3\, B\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} +$$

$$18\, a^4\, C\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} + 144\, a^2\, b^2\, C\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} +$$

$$288\, b^4\, C\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} + 288\, a^2\, A\, b^2\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 - b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}} +$$

$$384\, A\, b^4\, \mathrm{EllipticPi}\left[-1, -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{-a+b}{a+b}\right] \mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2 \sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-48\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$576\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+18\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$144\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+288\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(-24\,a^2\,b\,B-128\,b^3\,B+9\,a^3\,C-12\,a\,b^2\,(20\,A+13\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\left(-3\,a^3\,C+24\,b^3\,(4\,A+3\,C)-4\,a\,b^2\,(12\,A-52\,B+9\,C)+2\,a^2\,b\,(96\,A-28\,B+57\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(192\,b^2\,d\sqrt{\frac{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{13/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{3465\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$
$$2\,(a+b)\,\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B+4785\,a^4\,b\,C+495\,a^2\,b^3\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}$$
$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$
$$\frac{1}{3465\,a^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,\left(675\,a^5\,A+3705\,a^4\,A\,b+3315\,a^3\,A\,b^2+255\,a^2\,A\,b^3+10\,a\,A\,b^4+40\,A\,b^5+1617\,a^5\,B+\right.$$
$$\left.2871\,a^4\,b\,B+3069\,a^3\,b^2\,B+1705\,a^2\,b^3\,B-110\,a\,b^4\,B+825\,a^5\,C+4785\,a^4\,b\,C+4455\,a^3\,b^2\,C+495\,a^2\,b^3\,C\right)\,\sqrt{\mathrm{Cos}[c+d\,x]}$$
$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\mathrm{Sec}[c+d\,x]}\,+$$
$$\frac{2\,\left(675\,a^4\,A+1025\,a^2\,A\,b^2-20\,A\,b^4+1793\,a^3\,b\,B+55\,a\,b^3\,B+825\,a^4\,C+1485\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3465\,a^2\,d}+$$
$$\frac{2\,\left(1145\,a^2\,A\,b+15\,A\,b^3+539\,a^3\,B+825\,a\,b^2\,B+1485\,a^2\,b\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{3465\,a\,d}+$$
$$\frac{2\,\left(27\,a^2\,A+5\,A\,b^2+44\,a\,b\,B+33\,a^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{231\,d}+$$
$$\frac{2\,(5\,A\,b+11\,a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{9/2}\,\mathrm{Sin}[c+d\,x]}{99\,d}+$$
$$\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{11/2}\,\mathrm{Sin}[c+d\,x]}{11\,d}+\frac{1}{3465\,a^3\,d}$$
$$2\,\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B+4785\,a^4\,b\,C+495\,a^2\,b^3\,C\right)$$
$$\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\frac{1}{3465\,a^3\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B+15\,a^2\,b^3\,(17\,A+33\,C)+15\,a^4\,b\,(247\,A+319\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B+15\,a^2\,b^3\,(17\,A+33\,C)+15\,a^4\,b\,(247\,A+319\,C)\right)$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(40\,A\,b^4-10\,a\,b^3\,(3\,A+11\,B)+15\,a^2\,b^2\,(19\,A+121\,B+33\,C)+3\,a^4\,(225\,A+539\,B+275\,C)+6\,a^3\,b\,(505\,A+209\,B+660\,C)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(\frac{2\left(3705\,a^4\,A\,b+255\,a^2\,A\,b^3+40\,A\,b^5+1617\,a^5\,B+3069\,a^3\,b^2\,B-110\,a\,b^4\,B+4785\,a^4\,b\,C+495\,a^2\,b^3\,C\right)\text{Sin}[c+d\,x]}{3465\,a^3}+\right.$$

$$\frac{2}{99}\,\text{Sec}[c+d\,x]^4\left(23\,a\,A\,b\,\text{Sin}[c+d\,x]+11\,a^2\,B\,\text{Sin}[c+d\,x]\right)+\frac{2}{693}\,\text{Sec}[c+d\,x]^3$$

$$\left(81\,a^2\,A\,\text{Sin}[c+d\,x]+113\,A\,b^2\,\text{Sin}[c+d\,x]+209\,a\,b\,B\,\text{Sin}[c+d\,x]+99\,a^2\,C\,\text{Sin}[c+d\,x]\right)+\frac{1}{3465\,a}2\,\text{Sec}[c+d\,x]^2$$

$$\left(1145\,a^2\,A\,b\,\text{Sin}[c+d\,x]+15\,A\,b^3\,\text{Sin}[c+d\,x]+539\,a^3\,B\,\text{Sin}[c+d\,x]+825\,a\,b^2\,B\,\text{Sin}[c+d\,x]+1485\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{1}{3465\,a^2}2\,\text{Sec}[c+d\,x]\left(675\,a^4\,A\,\text{Sin}[c+d\,x]+1025\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]-20\,A\,b^4\,\text{Sin}[c+d\,x]+1793\,a^3\,b\,B\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\left.55\,a\,b^3\,B\,\text{Sin}[c+d\,x]+825\,a^4\,C\,\text{Sin}[c+d\,x]+1485\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)+\frac{2}{11}\,a^2\,A\,\text{Sec}[c+d\,x]^4\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{11/2},\ x,\ 9,\ 0\right\}$$

$$-\frac{1}{315\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(a+b)\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B+189\,a^4\,C+483\,a^2\,b^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{315\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(147\,a^4\,A+261\,a^3\,A\,b+279\,a^2\,A\,b^2+155\,a\,A\,b^3-10\,A\,b^4+75\,a^4\,B+\right.$$

$$\left.435\,a^3\,b\,B+405\,a^2\,b^2\,B+45\,a\,b^3\,B+189\,a^4\,C+357\,a^3\,b\,C+483\,a^2\,b^2\,C+315\,a\,b^3\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,\left(163\,a^2\,A\,b+5\,A\,b^3+75\,a^3\,B+135\,a\,b^2\,B+231\,a^2\,b\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{315\,a\,d}\,+$$

$$\frac{2\,\left(49\,a^2\,A+15\,A\,b^2+90\,a\,b\,B+63\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{315\,d}\,+$$

$$\frac{2\,(5\,A\,b+9\,a\,B)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{63\,d}\,+$$

$$\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{9/2}\,\text{Sin}[c+d\,x]}{9\,d}\,+$$

$$\frac{2\,\left(147\,a^4\,A+279\,a^2\,A\,b^2-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B+189\,a^4\,C+483\,a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{315\,a^2\,d}$$

$$\frac{1}{315\,a^2\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-(a+b)$$

$$\left(\left(-10\,A\,b^4+435\,a^3\,b\,B+45\,a\,b^3\,B+21\,a^4\,(7\,A+9\,C)+3\,a^2\,b^2\,(93\,A+161\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]-\right.$$

$$a\left(-10\,A\,b^3+6\,a^2\,b\,(19\,A+60\,B+28\,C)+3\,a^3\,(49\,A+25\,B+63\,C)+15\,a\,b^2\,(11\,A+3\,(B+7\,C))\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}$$

$$\sqrt{\text{Sec}[c+d\,x]}\left(-\frac{2\left(-147\,a^4\,A-279\,a^2\,A\,b^2+10\,A\,b^4-435\,a^3\,b\,B-45\,a\,b^3\,B-189\,a^4\,C-483\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{315\,a^2}+\right.$$

$$\frac{2}{63}\text{Sec}[c+d\,x]^3\left(19\,a\,A\,b\,\text{Sin}[c+d\,x]+9\,a^2\,B\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2}{315}\text{Sec}[c+d\,x]^2\left(49\,a^2\,A\,\text{Sin}[c+d\,x]+75\,A\,b^2\,\text{Sin}[c+d\,x]+135\,a\,b\,B\,\text{Sin}[c+d\,x]+63\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{1}{315\,a}2\,\text{Sec}[c+d\,x]\left(163\,a^2\,A\,b\,\text{Sin}[c+d\,x]+5\,A\,b^3\,\text{Sin}[c+d\,x]+75\,a^3\,B\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\left.135\,a\,b^2\,B\,\text{Sin}[c+d\,x]+231\,a^2\,b\,C\,\text{Sin}[c+d\,x]\right)+\frac{2}{9}a^2\,A\,\text{Sec}[c+d\,x]^3\,\text{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{9/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{105\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+245\,a^2\,b\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{105\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$2\,\left(25\,a^3\,A+145\,a^2\,A\,b+135\,a\,A\,b^2+15\,A\,b^3+63\,a^3\,B+119\,a^2\,b\,B+161\,a\,b^2\,B+105\,b^3\,B+35\,a^3\,C+245\,a^2\,b\,C+315\,a\,b^2\,C-105\,b^3\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{4\,b^3\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(25\,a^2\,A+15\,A\,b^2+56\,a\,b\,B+35\,a^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{105\,d}+$$

$$\frac{2\,(5\,A\,b+7\,a\,B)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{35\,d}+\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{7/2}\,\text{Sin}[c+d\,x]}{7\,d}+$$

$$\frac{2\,\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+245\,a^2\,b\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{105\,a\,d}$$

$$\frac{1}{105\,a\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\,2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\Bigg(-145\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-145\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-15\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-15\,A\,b^4\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$63\,a^4\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-63\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-161\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-161\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$245\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-245\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+290\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+30\,A\,b^4\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$126\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+322\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+490\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+145\,a^3\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$145\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+15\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-15\,A\,b^4\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+63\,a^4\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$63\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+161\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-161\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+245\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$245\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-210\,a\,b^3\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-210\,a\,b^3\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+5\,a^2\,b\,(29\,A+49\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\left(15\,b^3\,(A+7\,B-7\,C)+a^3\,(25\,A+63\,B+35\,C)+a^2\,b\,(145\,A+119\,B+245\,C)+a\,b^2\,(135\,A+161\,B+315\,C)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)+\frac{1}{d}$$

$$\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\Bigg(\frac{2\left(145\,a^2\,A\,b+15\,A\,b^3+63\,a^3\,B+161\,a\,b^2\,B+245\,a^2\,b\,C\right)\text{Sin}[c+d\,x]}{105\,a}+$$

$$\frac{2}{35}\,\text{Sec}[c+d\,x]^2\left(15\,a\,A\,b\,\text{Sin}[c+d\,x]+7\,a^2\,B\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2}{105}\,\text{Sec}[c+d\,x]\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+45\,A\,b^2\,\text{Sin}[c+d\,x]+77\,a\,b\,B\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)+$$

$$\frac{2}{7}\,a^2\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{7/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\left(18\,a^2\,A+46\,A\,b^2+70\,a\,b\,B+30\,a^2\,C-15\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{15\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$2\left(9\,a^3\,A+17\,a^2\,A\,b+23\,a\,A\,b^2+15\,A\,b^3+5\,a^3\,B+35\,a^2\,b\,B+45\,a\,b^2\,B-15\,b^3\,B+15\,a^3\,C+45\,a^2\,b\,C-45\,a\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{1}{d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,b^2\,(2\,b\,B+5\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{2\left(3\,a^2\,A+5\,A\,b^2+10\,a\,b\,B+5\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{5\,d}+$$

$$\frac{2\,(A\,b+a\,B)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{3\,d}+\frac{2\,A\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\,d}-$$

$$\frac{\left(18\,a^2\,A+46\,A\,b^2+70\,a\,b\,B+30\,a^2\,C-15\,b^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{15\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\Bigg(18\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+18\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+46\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+46\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$70\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+70\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+30\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+30\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$15\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-36\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-92\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$140\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-60\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+30\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-18\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$18\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-46\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+46\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-70\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$70\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-30\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+30\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+15\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$15\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+60\,b^3\,B\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+150\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$60\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+150\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(70\,a\,b\,B+b^2\,(46\,A-15\,C)+6\,a^2\,(3\,A+5\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\left(15\,b^3\,(A-B)+a\,b^2\,(23\,A+45\,(B-C))+a^2\,b\,(17\,A+35\,B+45\,C)+a^3\,(9\,A+5\,(B+3\,C))\right)$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\left.\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)\Bigg/$$

$$\left(15\,d\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)+\frac{1}{d}$$

$$\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2}{15}\left(9\,a^2\,A+23\,A\,b^2+35\,a\,b\,B+15\,a^2\,C\right)\mathrm{Sin}[c+d\,x]+\right.$$

$$\left.\frac{2}{15}\,\mathrm{Sec}[c+d\,x]\left(11\,a\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a^2\,B\,\mathrm{Sin}[c+d\,x]\right)+\frac{2}{5}\,a^2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]\right)$$

Incorrect antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(56\,a\,A\,b+24\,a^2\,B-12\,b^2\,B-27\,a\,b\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{6\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(4\,a^3\,A+28\,a^2\,A\,b+36\,a\,A\,b^2-12\,A\,b^3+12\,a^3\,B+36\,a^2\,b\,B-36\,a\,b^2\,B+12\,a^3\,C-36\,a^2\,b\,C+3\,a\,b^2\,C-6\,b^3\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}b\left(8\,A\,b^2+20\,a\,b\,B+15\,a^2\,C+4\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}-$$

$$\frac{b\,(8\,A\,b+4\,a\,B-b\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{2\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{2\,(5\,A\,b+3\,a\,B)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{3\,d}+$$

$$\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,d}-\frac{\left(56\,a\,A\,b+24\,a^2\,B-12\,b^2\,B-27\,a\,b\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{12\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\Bigg(56\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+56\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+24\,a^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$24\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-12\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-12\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-27\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$27\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-112\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-48\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+24\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$54\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-56\,a^2\,A\,b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+56\,a\,A\,b^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-24\,a^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$24\,a^2\,b\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+12\,a\,b^2\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-12\,b^3\,B\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+27\,a^2\,b\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$27\,a\,b^2\,C\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+48\,A\,b^3\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+120\,a\,b^2\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$90\,a^2\,b\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+24\,b^3\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$48\,A\,b^3\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+120\,a\,b^2\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$90\,a^2\,b\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+24\,b^3\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,\left(24\,a^2\,B-12\,b^2\,B+a\,b\,(56\,A-27\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$2\,\left(4\,a^2\,b\,(7\,A+9\,B-9\,C)-6\,b^3\,(2\,A+C)+3\,a\,b^2\,(12\,A-12\,B+C)+4\,a^3\,(A+3\,(B+C))\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)\Big/$$

$$\left(12\,d\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2}{3}\,a\,(7\,A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]+\frac{1}{4}\,b^2\,C\,\text{Sin}[2\,(c+d\,x)]+\frac{2}{3}\,a^2\,A\,\text{Tan}[c+d\,x]\right)}{d}$$

Incorrect antiderivative:

$$\left\{(a+b\,\text{Cos}[c+d\,x])^{5/2}\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{3/2},\ x,\ 10,\ 0\right\}$$

$$-\frac{1}{24\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(48\,a^2\,A-24\,A\,b^2-54\,a\,b\,B-33\,a^2\,C-16\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{12\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(24\,a^3\,A+72\,a^2\,A\,b-72\,a\,A\,b^2+24\,a^3\,B-72\,a^2\,b\,B+6\,a\,b^2\,B-12\,b^3\,B-24\,a^3\,C+13\,a^2\,b\,C-38\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{4\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(40\,a\,A\,b^2+30\,a^2\,b\,B+8\,b^3\,B+5\,a^3\,C+20\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}-$$

$$\frac{b\,(8\,a\,A-2\,b\,B-3\,a\,C)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{b\,(6\,A-C)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{3\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{2\,A\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]}{d}-$$

$$\frac{\left(48\,a^2\,A-24\,A\,b^2-54\,a\,b\,B-33\,a^2\,C-16\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{24\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{1}{12}\left(24\,a^2\,A+b^2\,C\right)\mathrm{Sin}[c+d\,x]+\frac{1}{24}\,b\,(6\,b\,B+13\,a\,C)\,\mathrm{Sin}[2\,(c+d\,x)]+\frac{1}{12}\,b^2\,C\,\mathrm{Sin}[3\,(c+d\,x)]\right)}{d}$$

$$+\Bigg(48\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+48\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$54\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-54\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-33\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-33\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-96\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+48\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$108\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+66\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+32\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-48\,a^3\,A\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$48\,a^2\,A\,b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+24\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-24\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+54\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$54\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+33\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-33\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$16\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+240\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+180\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$48\,b^3\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$120\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+240\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$180\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+48\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+120\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(-54\,a\,b\,B+a^2\,(48\,A-33\,C)-8\,b^2\,(3\,A+2\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\left(-12\,b^3\,B+24\,a^3\,(A+B-C)+a^2\,b\,(72\,A-72\,B+13\,C)-2\,a\,b^2\,(36\,A-3\,B+19\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.$$

$$\left.\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(24\,d\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\sqrt{\mathrm{Sec}[c+d\,x]},\,x,\,10,\,0\right\}$$

$$\frac{1}{192\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}(a+b)\left(432\,a\,A\,b^2+264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{1}{96\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$\left(192\,a^3\,A-576\,a^2\,A\,b+48\,a\,A\,b^2-96\,A\,b^3-192\,a^3\,B+104\,a^2\,b\,B-304\,a\,b^2\,B+59\,a^3\,C-322\,a^2\,b\,C+36\,a\,b^2\,C-72\,b^3\,C\right)$$

$$\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{32\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\left(240\,a^2\,A\,b^2+64\,A\,b^4+40\,a^3\,b\,B+160\,a\,b^3\,B-5\,a^4\,C+120\,a^2\,b^2\,C+48\,b^4\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{\left(16\,A\,b^2+24\,a\,b\,B+5\,a^2\,C+12\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sin}[c+d\,x]}{32\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{(8\,b\,B+5\,a\,C)\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\,\text{Sin}[c+d\,x]}{24\,d\,\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{C\,(a+b\,\text{Cos}[c+d\,x])^{5/2}\,\text{Sin}[c+d\,x]}{4\,d\,\sqrt{\text{Sec}[c+d\,x]}}+\frac{\left(432\,a\,A\,b^2+264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+284\,a\,b^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{192\,b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{1}{96}\,b\,(8\,b\,B+17\,a\,C)\,\text{Sin}[c+d\,x]+\right.$$

$$\left.\frac{1}{192}\left(48\,A\,b^2+104\,a\,b\,B+59\,a^2\,C+48\,b^2\,C\right)\text{Sin}[2\,(c+d\,x)]+\frac{1}{96}\,b\,(8\,b\,B+17\,a\,C)\,\text{Sin}[3\,(c+d\,x)]+\frac{1}{32}\,b^2\,C\,\text{Sin}[4\,(c+d\,x)]\right)+$$

$$\left(-432\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-432\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-264\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-264\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-\right.$$

$$128\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-128\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,a^4\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-15\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$284\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-284\,a\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+864\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+528\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$256\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+30\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+568\,a\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+432\,a^2\,A\,b^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$432\,a\,A\,b^3\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+264\,a^3\,b\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-264\,a^2\,b^2\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+128\,a\,b^3\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$128\,b^4\,B\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+15\,a^4\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-15\,a^3\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+284\,a^2\,b^2\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$284\,a\,b^3\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+1440\,a^2\,A\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+384\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$240\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+960\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+720\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$288\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+1440\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$384\,A\,b^4\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+240\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$960\,a\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-30\,a^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$720\,a^2\,b^2\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+288\,b^4\,C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b)\left(264\,a^2\,b\,B+128\,b^3\,B+15\,a^3\,C+4\,a\,b^2\,(108\,A+71\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$2\,b\left(a^3\,(-192\,A+192\,B-59\,C)+24\,b^3\,(4\,A+3\,C)-4\,a\,b^2\,(12\,A-76\,B+9\,C)+2\,a^2\,b\,(288\,A-52\,B+161\,C)\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(192\,b\,d\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2}\right.$$

$$\left.\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{(a+b\,\text{Cos}[c+d x])^{5/2}\left(A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2\right)}{\sqrt{\text{Sec}[c+d x]}},\ x,\ 11,\ 0\right\}$$

$$\frac{1}{1920\, b^2\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$(a+b)\left(2640\, a^2\, A\, b^2+1280\, A\, b^4+150\, a^3\, b\, B+2840\, a\, b^3\, B-45\, a^4\, C+1692\, a^2\, b^2\, C+1024\, b^4\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}-\frac{1}{960\, b\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(1920\, a^3\, A\, b-1040\, a^2\, A\, b^2+3040\, a\, A\, b^3-590\, a^3\, b\, B+3220\, a^2\, b^2\, B-360\, a\, b^3\, B+720\, b^4\, B-15\, a^4\, C+1146\, a^3\, b\, C-\right.$$

$$\left.772\, a^2\, b^2\, C+2312\, a\, b^3\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{64\, b^2\, d\, \sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(80\, a^3\, A\, b^2+320\, a\, A\, b^4-10\, a^4\, b\, B+240\, a^2\, b^3\, B+96\, b^5\, B+3\, a^5\, C+40\, a^3\, b^2\, C+240\, a\, b^4\, C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{\left(80\, A\, b^2+110\, a\, b\, B+15\, a^2\, C+64\, b^2\, C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{240\, d\, \mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{(2\, b\, B+a\, C)\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\mathrm{Sin}[c+d\,x]}{8\, d\, \mathrm{Sec}[c+d\,x]^{3/2}}+\frac{C\,(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}\,\mathrm{Sin}[c+d\,x]}{5\, d\, \mathrm{Sec}[c+d\,x]^{3/2}}+$$

$$\frac{\left(1040\, a\, A\, b^2+590\, a^2\, b\, B+360\, b^3\, B+15\, a^3\, C+772\, a\, b^2\, C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Sin}[c+d\,x]}{960\, b\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{\left(2640\, a^2\, A\, b^2+1280\, A\, b^4+150\, a^3\, b\, B+2840\, a\, b^3\, B-45\, a^4\, C+1692\, a^2\, b^2\, C+1024\, b^4\, C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\;\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{1920\, b^2\, d\, \sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{1}{960}\left(80\, A\, b^2+170\, a\, b\, B+93\, a^2\, C+88\, b^2\, C\right)\mathrm{Sin}[c+d\,x]+\right.$$

$$\frac{\left(1040\, a\, A\, b^2+590\, a^2\, b\, B+480\, b^3\, B+15\, a^3\, C+1024\, a\, b^2\, C\right)\mathrm{Sin}[2\,(c+d\,x)]}{1920\, b}+\frac{1}{960}\left(80\, A\, b^2+170\, a\, b\, B+93\, a^2\, C+100\, b^2\, C\right)$$

$$\left.\mathrm{Sin}[3\,(c+d\,x)]+\frac{1}{320}\, b\,(10\, b\, B+21\, a\, C)\,\mathrm{Sin}[4\,(c+d\,x)]+\frac{1}{80}\, b^2\, C\,\mathrm{Sin}[5\,(c+d\,x)]\right)+$$

$$\left(\left(\frac{a^3\, A}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{19\, a\, A\, b^2}{12\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{161\, a^2\, b\, B}{96\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{3\, b^3\, B}{8\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{191\, a^3\, C}{320\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{289\, a\, b^2\, C}{240\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+$$

$$\frac{59 a^2 A b \sqrt{\text{Sec}[c+d x]}}{48 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{A b^3 \sqrt{\text{Sec}[c+d x]}}{3 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{133 a^3 B \sqrt{\text{Sec}[c+d x]}}{384 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{89 a b^2 B \sqrt{\text{Sec}[c+d x]}}{96 \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{a^4 C \sqrt{\text{Sec}[c+d x]}}{256 b \sqrt{a+b \text{Cos}[c+d x]}}+\frac{809 a^2 b C \sqrt{\text{Sec}[c+d x]}}{960 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{4 b^3 C \sqrt{\text{Sec}[c+d x]}}{15 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{11 a^2 A b \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{16 \sqrt{a+b \text{Cos}[c+d x]}}+$$

$$\frac{A b^3 \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{3 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{5 a^3 B \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{128 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{71 a b^2 B \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{96 \sqrt{a+b \text{Cos}[c+d x]}}-$$

$$\frac{3 a^4 C \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{256 b \sqrt{a+b \text{Cos}[c+d x]}}+\frac{141 a^2 b C \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{320 \sqrt{a+b \text{Cos}[c+d x]}}+\frac{4 b^3 C \text{Cos}[2 (c+d x)] \sqrt{\text{Sec}[c+d x]}}{15 \sqrt{a+b \text{Cos}[c+d x]}}\Bigg)$$

$$\Bigg(-\frac{\left(2640 a^2 A b^2+1280 A b^4+150 a^3 b B+2840 a b^3 B-45 a^4 C+1692 a^2 b^2 C+1024 b^4 C\right) \text{Tan}\left[\frac{1}{2} (c+d x)\right] \sqrt{a+\frac{b-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}}}{4 b \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}} \sqrt{1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}}-$$

$$\frac{1}{4 b \left(a+b+a \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)} \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}} \sqrt{1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \left(a+b+a \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)} \sqrt{a+\frac{b-b \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}}$$

$$\Bigg(-\frac{1200 a^3 A b^2 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \left(a+b+(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)}}+$$

$$\frac{4720 a^2 A b^3 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \left(a+b+(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)}}-$$

$$\frac{4800 a A b^4 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2} \sqrt{1-\frac{(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right) \left(a+b+(a-b) \text{Tan}\left[\frac{1}{2} (c+d x)\right]^2\right)}}+$$

$$\frac{1280\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{150\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1330\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\,a^2\,b^3\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3560\,a\,b^4\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{1440\,b^5\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{45\,a^5\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{15\,a^4\,b\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{600\,a^3\,b^2\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\frac{3236\,a^2\,b^3\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\,a\,b^4\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\frac{1024\,b^5\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\left(2640\,a^3\,A\,(-a-b)\,b^2\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\right.\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2640\, a^2 A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) + \left(1280\, a A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/ \left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(1280\, A\, (-a-b)\, b^5 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(150\, a^4 (-a-b)\, b\, B \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\left(150\,a^3(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}+\left(2840\,a^2(-a-b)\,b^3\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\left(2840\,a\,(-a-b)\,b^4\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\left(45\,a^5(-a-b)\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.\right.\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(45\,a^4\,(-a-b)\,b\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1692\,a^3\,(-a-b)\,b^2\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Bigg[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Bigg]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\Bigg(1692\,a^2\,(-a-b)\,b^3\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Bigg[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Bigg]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\left(1024\,a\,(-a-b)\,b^4\,C\right.\right.$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1024\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\,b^5\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{90\,a^5\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{1200\,a^3\,b^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a\,b^4\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}\Bigg)\Bigg)\Bigg)\Bigg)\Big/$$

$$\Bigg(d\,\Bigg(-\Big(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\Big)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-\frac{b\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}-\frac{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}{\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^2}\right)\Bigg)\Bigg/$$

$$\left(8\,b\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{a+\frac{b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)+$$

$$\Bigg(\left(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)$$

$$\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{a+\frac{b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\Bigg)\Bigg/$$

$$\left(8\,b\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\right)-$$

$$\frac{\left(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{a+\frac{b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}{8\,b\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$+\frac{1}{8\,b\sqrt{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(2640\,a^2\,A\,b^2+1280\,A\,b^4+150\,a^3\,b\,B+2840\,a\,b^3\,B-45\,a^4\,C+1692\,a^2\,b^2\,C+1024\,b^4\,C\right)$$

$$\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{a+\frac{b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}-$$

$$\frac{1}{8\,b\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{a+\frac{b-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\sqrt{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}$$

$$\left(-\frac{b\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}-\frac{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(b-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^2}\right)$$

$$\left(-\frac{1200\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+\right.$$

$$\frac{4720\,a^2\,A\,b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{4800\,a\,A\,b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1280\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{150\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1330\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\, a^2 b^3 B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3560\, a\, b^4 B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{1440\, b^5 B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{45\, a^5 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{15\, a^4 b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{600\, a^3 b^2 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3236\, a^2 b^3 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{3600\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1024\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\left(2640\, a^3\, A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(2640\, a^2\, A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) + \left(1280\, a\, A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right.$$

$$\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/\Bigg((a-b)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)-$$

$$\Bigg(1280\,A\,(-a-b)\,b^5\left(-\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\Bigg((a-b)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\Bigg(150\,a^4\,(-a-b)\,b\,B\left(-\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\mathrm{EllipticF}\Big[$$

$$\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\Big]\right)\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\Bigg((a-b)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)-$$

$$\Bigg(150\,a^3\,(-a-b)\,b^2\,B\left(-\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\mathrm{EllipticF}\Big[$$

$$\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\Big]\right)\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\Bigg((a-b)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\left(2840\, a^2\, (-a-b)\, b^3\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2840\, a\, (-a-b)\, b^4\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\, a^5\, (-a-b)\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\, a^4\, (-a-b)\, b\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1692\,a^3\,(-a-b)\,b^2\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\Bigg(1692\,a^2\,(-a-b)\,b^3\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1024\,a\,(-a-b)\,b^4\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1024\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{90\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{1200\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\left.\frac{7200\, a\, b^4\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}\right) +$$

$$\frac{1}{4\, b\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^2}$$

$$\left(a\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-b\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\sqrt{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}$$

$$\sqrt{a+\frac{b-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\left(-\frac{1200\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+\right.$$

$$\frac{4720\,a^2\,A\,b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{4800\,a\,A\,b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1280\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{150\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1330\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\,a^2\,b^3\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3560\, a\, b^4\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{1440\, b^5\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{45\, a^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{15\, a^4\, b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{600\, a^3\, b^2\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3236\, a^2\, b^3\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{3600\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1024\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\left(2640\, a^3\, A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(2640\, a^2\, A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(1280\, a\, A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1280\,A\,(-a-b)\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(150\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(150\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(2840\, a^2\, (-a-b)\, b^3\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2840\, a\, (-a-b)\, b^4\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\, a^5\, (-a-b)\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\, a^4\, (-a-b)\, b\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1692\,a^3\,(-a-b)\,b^2\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\Bigg(1692\,a^2\,(-a-b)\,b^3\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1024\,a\,(-a-b)\,b^4\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1024\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{90\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{1200\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\left.\frac{7200\, a\, b^4\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}\right) -$$

$$\frac{1}{8\, b\, \sqrt{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\, \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right] \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}$$

$$\sqrt{a+\frac{b-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\left(-\frac{1200\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+\right.$$

$$\frac{4720\,a^2\,A\,b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{4800\,a\,A\,b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1280\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{150\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1330\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\,a^2\,b^3\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3560\, a\, b^4\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{1440\, b^5\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{45\, a^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{15\, a^4\, b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{600\, a^3\, b^2\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3236\, a^2\, b^3\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{3600\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1024\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\left(2640\, a^3\, A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(2640\, a^2\, A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(1280\, a\, A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1280\,A\,(-a-b)\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(150\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(150\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(2840\, a^2\, (-a-b)\, b^3\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2840\, a\, (-a-b)\, b^4\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\, a^5\, (-a-b)\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\, a^4\, (-a-b)\, b\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1692\,a^3\,(-a-b)\,b^2\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\Bigg(1692\,a^2\,(-a-b)\,b^3\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1024\,a\,(-a-b)\,b^4\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1024\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{90\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{1200\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\left.\frac{7200\, a\, b^4\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}\right) -$$

$$\frac{1}{8\, b\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\, \text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\, \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)^{3/2} \sqrt{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}$$

$$\sqrt{a+\frac{b-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\left(-\frac{1200\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+\right.$$

$$\frac{4720\,a^2\,A\,b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{4800\,a\,A\,b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1280\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{150\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1330\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{3600\,a^2\,b^3\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3560\, a\, b^4\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{1440\, b^5\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{45\, a^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{15\, a^4\, b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{600\, a^3\, b^2\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3236\, a^2\, b^3\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{3600\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1024\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\left(2640\, a^3\, A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(2640\, a^2\, A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(1280\, a\, A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1280\,A\,(-a-b)\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(150\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(150\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(2840\, a^2\, (-a-b)\, b^3\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2840\, a\, (-a-b)\, b^4\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\, a^5\, (-a-b)\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\, a^4\, (-a-b)\, b\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1692\,a^3\,(-a-b)\,b^2\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\Bigg(1692\,a^2\,(-a-b)\,b^3\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\Bigg(1024\,a\,(-a-b)\,b^4\,C\,\Bigg(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\Big]\Bigg)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1024\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{90\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\frac{1200\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} -$$

$$\left(\frac{7200\, a\, b^4\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}\right) -$$

$$\left(\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\, \sqrt{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{a+\frac{b-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.$$

$$\left(\left(a\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-b\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\right)\right)$$

$$\left(-\frac{1200\, a^3\, A\, b^2\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\, \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}} +\right.$$

$$\frac{4720\, a^2\, A\, b^3\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{4800\, a\, A\, b^4\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{1280\, A\, b^5\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{150\, a^4\, b\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{1330\, a^3\, b^2\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{3600\, a^2\, b^3\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{3560\, a\, b^4\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{1440\, b^5\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{45\, a^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{15\, a^4\, b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{600\, a^3\, b^2\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{3236\, a^2\, b^3\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{3600\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1024\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\left(2640\, a^3 A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/ \left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(2640\, a^2 A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/ \left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(1280\, a A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/ \left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(1280\, A\, (-a-b)\, b^5 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\right.\right.\right.$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\Bigg(150\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\Bigg(150\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\Bigg(2840\,a^2\,(-a-b)\,b^3\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(2840\,a\,(-a-b)\,b^4\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\right.\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\,a^5\,(-a-b)\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\,a^4\,(-a-b)\,b\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\right.\right.\right.$$

$$\left.\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(1692\, a^3\, (-a-b)\, b^2\, C\, \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\right.\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)-$$

$$\left(1692\, a^2\, (-a-b)\, b^3\, C\, \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\right.\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(1024\, a\, (-a-b)\, b^4\, C\, \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[\right.\right.$$

$$\left.\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)-$$

$$\left(1024\, (-a-b)\, b^5\, C\, \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]+\text{EllipticF}\Big[\right.\right.$$

$$\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\frac{2400\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{9600\,a\,A\,b^4\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{300\,a^4\,b\,B\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{7200\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2880\,b^5\,B\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{90\,a^5\,C\,\text{EllipticPi}\left[-1,\ -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\ \frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{1200\, a^3 b^2 C\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{7200\, a b^4 C\, \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}}\Bigg)\Bigg) \Big/$$

$$\Bigg(8 b \left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\Bigg) -$$

$$\frac{1}{4 b \left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)} \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\sqrt{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}$$

$$\sqrt{a+\frac{b-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\Bigg(-\frac{600\, a^3 A b^2\, \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{2360\, a^2\, A\, b^3\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{2400\, a\, A\, b^4\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{640\, A\, b^5\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{75\, a^4\, b\, B\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{665\, a^3\, b^2\, B\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{1800\, a^2\, b^3\, B\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} +$$

$$\frac{1780\, a\, b^4\, B\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{720\, b^5\, B\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{45\, a^5\, C\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{15\, a^4\, b\, C\, \text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}} -$$

$$\frac{300\, a^3\, b^2\, C\, \text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\frac{1618\, a^2\, b^3\, C\, \text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}-$$

$$\frac{1800\, a\, b^4\, C\, \text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\frac{512\, b^5\, C\, \text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+\left(600\, a^3\, A\,(a-b)\, b^2\right.$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\Bigg)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\left(2360\, a^2\, A\,(a-b)\, b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\Bigg)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(2400\, a\, A\,(a-b)\, b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right.$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\Bigg)\Bigg/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\frac{640 A (a-b) b^5 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}{(-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}$$

$$-\Bigg(75 a^4 (a-b) b B \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]$$

$$\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\Bigg)\Bigg/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\Bigg(665 a^3 (a-b) b^2 B \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\Bigg)\Bigg/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\Bigg(1800 a^2 (a-b) b^3 B \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\left(\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\left(1780\,a\,(a-b)\,b^4\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\frac{720\,(a-b)\,b^5\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}{(-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}$$

$$+$$

$$\frac{45\,a^5\,(a-b)\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}{2\,(-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}$$

$$+\left(15\,a^4\,(a-b)\,b\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(2\,(-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(300\,a^3\,(a-b)\,b^2\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\left(1618\,a^2\,(a-b)\,b^3\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(1800\,a\,(a-b)\,b^4\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Big/$$

$$\left((-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\frac{512\,(a-b)\,b^5\,C\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}{(-a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}$$

$$-\left(1320\,a^3\,A\,b^2\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(1320\,a^2\,A\,b^3\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\left(640\,a\,A\,b^4\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(640\,A\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\left(75\,a^4\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)+$$

$$\left(75\,a^3\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)-$$

$$\left(1420\,a^2\,b^3\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\left(1420\,a\,b^4\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\left(45\,a^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(2\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\left(45\,a^4\,b\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(2\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\left(846\,a^3\,b^2\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\left(846\,a^2 b^3 C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)-$$

$$\left(512\,a\,b^4 C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\left(512\,b^5 C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left(\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\right)\Big/$$

$$\left(\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)+$$

$$\frac{600\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{2360\,a^2\,A\,b^3\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{2400\,a\,A\,b^4\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{640\,A\,b^5\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{75\,a^4\,b\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{665\,a^3\,b^2\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1800\,a^2\,b^3\,B\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{1780\, a\, b^4\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{720\, b^5\, B\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{45\, a^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{15\, a^4\, b\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{300\, a^3\, b^2\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{1618\, a^2\, b^3\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} +$$

$$\frac{1800\, a\, b^4\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\frac{512\, b^5\, C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}} -$$

$$\left(1320\, a^3\, A\, (-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) +$$

$$\left(1320\, a^2\, A\, (-a-b)\, b^3 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right) -$$

$$\left(640\, a\, A\, (-a-b)\, b^4 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] + \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right) \text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(640\,A\,(-a-b)\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(75\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(75\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}-\right.$$

$$\left(1420\, a^2\, (-a-b)\, b^3\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.\right.\right.$$

$$\left.\left.\left.\frac{a-b}{-a-b}\right]\right)\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(1420\, a\,(-a-b)\, b^4\, B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.\right.\right.$$

$$\left.\left.\left.\frac{a-b}{-a-b}\right]\right)\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\, a^5\,(-a-b)\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left(2\,(a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(45\, a^4\,(-a-b)\, b\, C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left(\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left(2(a-b)\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\left(846 a^3(-a-b) b^2 C\left(-\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\right.\right.\right.$$

$$\left.\left.\left.\frac{a-b}{-a-b}\right]\right)\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\left(846 a^2(-a-b) b^3 C\left(-\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\right.\right.\right.$$

$$\left.\left.\left.\frac{a-b}{-a-b}\right]\right)\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\left(512 a(-a-b) b^4 C\left(-\operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\right.\right.\right.$$

$$\left.\left.\left.\frac{a-b}{-a-b}\right]\right)\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right] \sqrt{1-\frac{(a-b)\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right) \Big/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\left(512\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left((a-b)\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}+\right.$$

$$\frac{1200\,a^3\,A\,b^2\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{4800\,a\,A\,b^4\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}-$$

$$\frac{150\,a^4\,b\,B\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3600\,a^2\,b^3\,B\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{1440\,b^5\,B\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{45\,a^5\,C\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{600\, a^3\, b^2\, C\, \mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\frac{3600\, a\, b^4\, C\, \mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}}+$$

$$\left(1200\, a^3\, A\,(a-b)\, b^2\, \mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right.$$

$$\left.\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Bigg/\left((-a-b)\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(4800\, a\, A\,(a-b)\, b^4\, \mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right.$$

$$\left.\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Bigg/\left((-a-b)\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(150\, a^4\,(a-b)\, b\, B\, \mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\right.$$

$$\left.\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\right)\Bigg/\left((-a-b)\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\Bigg(3600\,a^2\,(a-b)\,b^3\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\Bigg)\Big/\Bigg((-a-b)\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\Bigg(1440\,(a-b)\,b^5\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\Bigg)\Big/\Bigg((-a-b)\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\Bigg(45\,a^5\,(a-b)\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\Bigg)\Big/\Bigg((-a-b)\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\Bigg)+$$

$$\left(600\,a^3\,(a-b)\,b^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Bigg/\left((-a-b)\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(3600\,a\,(a-b)\,b^4\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right)\Bigg/\left((-a-b)\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(1200\,a^3\,A\,b^2\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)\Bigg/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(4800\,a\,A\,b^4\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left(\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)-$$

$$\left(150\,a^4\,b\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\left(3600\,a^2\,b^3\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right)\Big/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}\right)+$$

$$\frac{1440\,b^5\,B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}}$$

+

$$\frac{45\,a^5\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}}+$$

$$\left(600\,a^3\,b^2\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\right.$$

$$\left.\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(3600\,a\,b^4\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right.$$

$$\left.\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right)\Big/$$

$$\left(\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(600\,a^3\,A\,b^2\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\right)\right)\Big/\left(\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\right)^{3/2}-$$

$$\left(2360\, a^2 A b^3 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Bigg/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+$$

$$\left(2400\, a A b^4 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Bigg/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}-$$

$$\left(640\, A b^5 \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Bigg/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}-$$

$$\left(75\, a^4 b B \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\Bigg)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}-$$

$$\Bigg(665\,a^3\,b^2\,B\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\Bigg)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}+$$

$$\Bigg(1800\,a^2\,b^3\,B\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\Bigg)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}-$$

$$\Bigg(1780\,a\,b^4\,B\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]$$

$$\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\Bigg)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}+$$

$$\Bigg(720\,b^5\,B\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}+$$

$$\left(45\,a^5\,C\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\right)\Bigg/\left(2\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)+$$

$$\left(15\,a^4\,b\,C\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\right)\Bigg/\left(2\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)+$$

$$\left(300\,a^3\,b^2\,C\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left((a-b)\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left.\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\right)\Bigg/\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}-$$

$$\left(1618\, a^2 b^3 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.\right.$$

$$\left.\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+$$

$$\left(1800\, a\, b^4 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.\right.$$

$$\left.\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}-$$

$$\left(512\, b^5 C\, \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.\right.$$

$$\left.\left.\left.\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}-$$

$$\left(1320\, a^3 A\,(-a-b)\, b^2 \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\right.\right.\right.$$

$$\left.\left.\frac{a-b}{-a-b}\right]\right) \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\Bigg)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)+\Bigg(1320\,a^2\,A\,(-a-b)\,b^3$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg((a-b)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\Bigg)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)-\Bigg(640\,a\,A\,(-a-b)\,b^4$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\Bigg((a-b)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]$$

$$\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\Bigg)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)+$$

$$\Bigg(640\,A\,(-a-b)\,b^5\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)-$$

$$\Bigg(75\,a^4\,(-a-b)\,b\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)+$$

$$\Bigg(75\,a^3\,(-a-b)\,b^2\,B\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)-\Bigg(1420\,a^2\,(-a-b)\,b^3\,B$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)+\Bigg(1420\,a\,(-a-b)\,b^4\,B$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)+$$

$$\Bigg(45\,a^5\,(-a-b)\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left(2\,(a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)-$$

$$\left(45 a^4 (-a-b) b C \left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/$$

$$\left(2(a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)-\left(846 a^3 (-a-b) b^2 C\right.$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}\right)+\left(846 a^2 (-a-b) b^3 C\right.$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\left((a-b)\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right.$$

$$\left.\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+(a-b)\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Big/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)-\left(512\,a\,(-a-b)\,b^4\,C\right.$$

$$\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\right)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)+$$

$$\left(512\,(-a-b)\,b^5\,C\left(-\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]+\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\right)\right.$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\left((a-b)\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right.$$

$$\left.\left.\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\right)\Bigg/$$

$$\left((a-b)\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\right)+$$

$$\left(2640\,a^3\,A\,(-a-b)\,b^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\left(2640\,a^2\,A\,(-a-b)\,b^3\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}+\right.$$

$$\left(1280\,a\,A\,(-a-b)\,b^4\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\left(1280\,A\,(-a-b)\,b^5\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+$$

$$\left(150\,a^4\,(-a-b)\,b\,B\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)\right)\Big/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)-$$

$$\left(150\,a^3\,(-a-b)\,b^2\,B\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}+\right.$$

$$\left(2840\,a^2\,(-a-b)\,b^3\,B\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\left(2840\,a\,(-a-b)\,b^4\,B\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\left(45\,a^5\,(-a-b)\,C\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\left(\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)\right)\Big/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(45\,a^4\,(-a-b)\,b\,C\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left.\left(\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)\right)\Big/$$

$$\left((a-b)\,\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)}\right)+$$

$$\left(1692\,a^3\,(-a-b)\,b^2\,C\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\left(1692\,a^2\,(-a-b)\,b^3\,C\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}+\right.$$

$$\left(1024\,a\,(-a-b)\,b^4\,C\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}-\frac{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}}{2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\right)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)}-\right.$$

$$\Bigg(1024\,(-a-b)\,b^5\,C\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left(\frac{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}-\frac{\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)\Bigg)\Bigg/$$

$$\left((a-b)\sqrt{\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)}\right)+\Bigg(1200\,a^3\,A\,b^2$$

$$\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-b\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\right.$$

$$\left.\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg)\Bigg)\Bigg/$$

$$\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}+\Bigg(4800\,a\,A\,b^4$$

$$\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(a-b)\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-b\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\right.$$

$$\left.\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}-\left(150\,a^4\,b\,B\right.$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-b\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Bigg/$$

$$\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+\left(3600\,a^2\,b^3\,B\right.$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-b\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\right.$$

$$\left.\left.\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right)\Bigg/$$

$$\left(\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+\left(1440\,b^5\,B\right.$$

$$\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{a-b}{-a-b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{1-\frac{(a-b)\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]-b\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\left(1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-$$

$$\left.\left.\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right) \Big/$$

$$\left(\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+$$

$$\left(45 a^5 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}\right.$$

$$\left(\left(a \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-b \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\right.$$

$$\left.\left.\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right) \Big/$$

$$\left(\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+\left(600 a^3 b^2 C\right.$$

$$\operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}$$

$$\left(\left(a \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-b \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right)\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-\right.$$

$$\left.\left.\operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)\right) \Big/$$

$$\left(\left(1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\left(a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\right)^{3/2}+\left(3600 a b^4 C\right.$$

$$\operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{a-b}{-a-b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{1-\frac{(a-b) \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{-a-b}}$$

$$\left(\left(a\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-b\,\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-\right.$$

$$\left.\mathrm{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)\Bigg)\Bigg/$$

$$\left(\left(1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\right)^{3/2}\Bigg)\Bigg)\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{9/2}}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{105\,a^4\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}2\,(a+b)\,\left(44\,a^2\,A\,b+48\,A\,b^3-63\,a^3\,B-56\,a\,b^2\,B+70\,a^2\,b\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{105\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$2\,\left(25\,a^3\,A-44\,a^2\,A\,b-12\,a\,A\,b^2-48\,A\,b^3+63\,a^3\,B+14\,a^2\,b\,B+56\,a\,b^2\,B+35\,a^3\,C-70\,a^2\,b\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+$$

$$\frac{2\,\left(25\,a^2\,A+24\,A\,b^2-28\,a\,b\,B+35\,a^2\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{3/2}\,\mathrm{Sin}[c+d\,x]}{105\,a^3\,d}-$$

$$\frac{2\,(6\,A\,b-7\,a\,B)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{5/2}\,\mathrm{Sin}[c+d\,x]}{35\,a^2\,d}+\frac{2\,A\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sec}[c+d\,x]^{7/2}\,\mathrm{Sin}[c+d\,x]}{7\,a\,d}-$$

$$\frac{2\,\left(44\,a^2\,A\,b+48\,A\,b^3-63\,a^3\,B-56\,a\,b^2\,B+70\,a^2\,b\,C\right)\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{105\,a^4\,d}$$

$$\frac{1}{105\,a^4\,d\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(\left(-48\,A\,b^3+63\,a^3\,B+56\,a\,b^2\,B-2\,a^2\,b\,(22\,A+35\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)-$$

$$(a+b)\left(-48\,A\,b^3+63\,a^3\,B+56\,a\,b^2\,B-2\,a^2\,b\,(22\,A+35\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$a\left(-48\,A\,b^3+4\,a\,b^2\,(-3\,A+14\,B)-2\,a^2\,b\,(22\,A-7\,B+35\,C)+a^3\,(25\,A+63\,B+35\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\right.$$

$$\left.\left.\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\right)+$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\left(\frac{2\left(-44\,a^2\,A\,b-48\,A\,b^3+63\,a^3\,B+56\,a\,b^2\,B-70\,a^2\,b\,C\right)\text{Sin}[c+d\,x]}{105\,a^4}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]^2\,(-6\,A\,b\,\text{Sin}[c+d\,x]+7\,a\,B\,\text{Sin}[c+d\,x])}{35\,a^2}+$$

$$\frac{2\,\text{Sec}[c+d\,x]\left(25\,a^2\,A\,\text{Sin}[c+d\,x]+24\,A\,b^2\,\text{Sin}[c+d\,x]-28\,a\,b\,B\,\text{Sin}[c+d\,x]+35\,a^2\,C\,\text{Sin}[c+d\,x]\right)}{105\,a^3}+$$

$$\left.\frac{2\,A\,\text{Sec}[c+d\,x]^2\,\text{Tan}[c+d\,x]}{7\,a}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\text{Sec}[c+d\,x]^{7/2}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{15\,a^3\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B+15\,a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{1}{15\,a^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\left(9\,a^2\,A+2\,a\,A\,b+8\,A\,b^2+5\,a^2\,B-10\,a\,b\,B+15\,a^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}-$$

$$\frac{2\,(4\,A\,b-5\,a\,B)\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{15\,a^2\,d}+\frac{2\,A\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{5/2}\,\text{Sin}[c+d\,x]}{5\,a\,d}+$$

$$\frac{2\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B+15\,a^2\,C\right)\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]}{15\,a^3\,d}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(9\,a^2\,A+8\,A\,b^2-10\,a\,b\,B+15\,a^2\,C\right)\mathrm{Sin}[c+d\,x]}{15\,a^3}+\frac{2\,\mathrm{Sec}[c+d\,x]\left(-4\,A\,b\,\mathrm{Sin}[c+d\,x]+5\,a\,B\,\mathrm{Sin}[c+d\,x]\right)}{15\,a^2}+\frac{2\,A\,\mathrm{Sec}[c+d\,x]\,\mathrm{Tan}[c+d\,x]}{5\,a}\right)}{d}+$$

$$\left(2\left(-\frac{3\,A}{5\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{8\,A\,b^2}{15\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{2\,b\,B}{3\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{C}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}-\frac{7\,A\,b\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{8\,A\,b^3\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+\frac{2\,b^2\,B\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b\,C\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-$$

$$\frac{3\,A\,b\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{5\,a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{8\,A\,b^3\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{15\,a^3\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}+$$

$$\left.\frac{2\,b^2\,B\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{3\,a^2\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}-\frac{b\,C\,\mathrm{Cos}[2\,(c+d\,x)]\,\sqrt{\mathrm{Sec}[c+d\,x]}}{a\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\right)\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}$$

$$\left(-2\,(a+b)\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\right.$$

$$\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,(B+3\,C))\right)$$

$$\sqrt{\frac{\mathrm{Cos}[c+d\,x]}{1+\mathrm{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left.\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\mathrm{Cos}[c+d\,x]\,(a+b\,\mathrm{Cos}[c+d\,x])\,\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(15\,a^3\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\right.$$

$$\left(\frac{1}{15\,a^3\,(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\,\sqrt{\mathrm{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,b\,\sqrt{\mathrm{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]\right.$$

$$\left(-2(a+b)\left(8Ab^2-10abB+3a^2(3A+5C)\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(8Ab^2+2ab(A-5B)+a^2(9A+5(B+3C))\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(8Ab^2-10abB+3a^2(3A+5C)\right)\text{Cos}[c+dx](a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)-$$

$$\frac{1}{15a^3\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]$$

$$\left(-2(a+b)\left(8Ab^2-10abB+3a^2(3A+5C)\right)\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+2a\left(8Ab^2+2ab(A-5B)+a^2(9A+5(B+3C))\right)$$

$$\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]-$$

$$\left.\left(8Ab^2-10abB+3a^2(3A+5C)\right)\text{Cos}[c+dx](a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right)+$$

$$\frac{1}{15a^3\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+dx)\right]^2}}2\sqrt{\text{Cos}\left[\frac{1}{2}(c+dx)\right]^2\text{Sec}[c+dx]}$$

$$\left(-\frac{1}{2}\left(8Ab^2-10abB+3a^2(3A+5C)\right)\text{Cos}[c+dx](a+b\,\text{Cos}[c+dx])\,\text{Sec}\left[\frac{1}{2}(c+dx)\right]^4-\frac{1}{\sqrt{\frac{\text{Cos}[c+dx]}{1+\text{Cos}[c+dx]}}}\right.$$

$$(a+b)\left(8Ab^2-10abB+3a^2(3A+5C)\right)\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)+\frac{1}{\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}}a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,(B+3\,C))\right)$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\;\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d\,x]\,\text{Sin}[c+d\,x]}{(1+\text{Cos}[c+d\,x])^2}-\right.$$

$$\left.\frac{\text{Sin}[c+d\,x]}{1+\text{Cos}[c+d\,x]}\right)-\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}(a+b)\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}}a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,(B+3\,C))\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\left(-\frac{b\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}+\frac{(a+b\,\text{Cos}[c+d\,x])\,\text{Sin}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])^2}\right)+$$

$$b\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{Cos}[c+d\,x]\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+$$

$$\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2+$$

$$\frac{a\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,(B+3\,C))\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right)$$

$$+\frac{1}{15\,a^3\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\,\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]+2\,a\,\left(8\,A\,b^2+2\,a\,b\,(A-5\,B)+a^2\,(9\,A+5\,(B+3\,C))\right)$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]-$$

$$\left.\left(8\,A\,b^2-10\,a\,b\,B+3\,a^2\,(3\,A+5\,C)\right)\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{5/2}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,6,\,0\right\}$$

$$\frac{1}{3\,a^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a+b)\,(2\,A\,b-3\,a\,B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{1}{3\,a\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}2\,(a\,A-2\,A\,b+3\,a\,B+3\,a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,A\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,d}-\frac{2\,(2\,A\,b-3\,a\,B)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,d}$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,(-2\,A\,b+3\,a\,B)\,\text{Sin}[c+d\,x]}{3\,a^2}+\frac{2\,A\,\text{Tan}[c+d\,x]}{3\,a}\right)}{d}+$$

$$\left(2\,\left(\frac{2\,A\,b}{3\,a\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}-\frac{B}{\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}+\right.\right.$$

$$\frac{A\sqrt{\text{Sec}[c+d\,x]}}{3\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{2\,A\,b^2\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b\,B\sqrt{\text{Sec}[c+d\,x]}}{a\sqrt{a+b\,\text{Cos}[c+d\,x]}}+\frac{C\sqrt{\text{Sec}[c+d\,x]}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\left.\frac{2\,A\,b^2\,\text{Cos}[2\,(c+d\,x)]\sqrt{\text{Sec}[c+d\,x]}}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}}-\frac{b\,B\,\text{Cos}[2\,(c+d\,x)]\sqrt{\text{Sec}[c+d\,x]}}{a\sqrt{a+b\,\text{Cos}[c+d\,x]}}\right)\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}$$

$$\left(-2\,(a+b)\,(-2\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$2\,a\,(-2\,A\,b+a\,(A+3\,(B+C)))\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\right.$$

$$\left.\left.\left.\frac{-a+b}{a+b}\right]+(2\,A\,b-3\,a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right)\Bigg/$$

$$\left(3\,a^2\,d\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(\frac{1}{3\,a^2\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\right.\right.$$

$$b\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Sin}[c+d\,x]\left(-2\,(a+b)\,(-2\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\right.$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\,(-2\,A\,b+a\,(A+3\,(B+C)))$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.(2\,A\,b-3\,a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right)-$$

$$\frac{1}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\sqrt{\text{Cos}\left[\frac{1}{2}\,(c+d\,x)\right]^2\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\left(-2\,(a+b)\,(-2\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+2 a(-2 A b+a(A+3(B+C)))\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]+(2 A b-3 a B)\,\text{Cos}[c+d x]$$

$$(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2\text{Tan}\left[\frac{1}{2}(c+d x)\right]\Bigg)+\frac{1}{3 a^2\sqrt{a+b\,\text{Cos}[c+d x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$2\sqrt{\text{Cos}\left[\frac{1}{2}(c+d x)\right]^2\text{Sec}[c+d x]}\Bigg(\frac{1}{2}(2 A b-3 a B)\,\text{Cos}[c+d x]\,(a+b\,\text{Cos}[c+d x])\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^4-$$

$$\frac{(a+b)(-2 A b+3 a B)\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}$$

$$+\frac{1}{\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}}a(-2 A b+a(A+3(B+C)))\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\left(\frac{\text{Cos}[c+d x]\,\text{Sin}[c+d x]}{(1+\text{Cos}[c+d x])^2}-\frac{\text{Sin}[c+d x]}{1+\text{Cos}[c+d x]}\right)-$$

$$\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}(a+b)(-2 A b+3 a B)\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\ \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)+\frac{1}{\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}}$$

$$a(-2 A b+a(A+3(B+C)))\sqrt{\frac{\text{Cos}[c+d x]}{1+\text{Cos}[c+d x]}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left(-\frac{b\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}+\frac{(a+b\,\text{Cos}[c+d x])\,\text{Sin}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])^2}\right)-b(2 A b-3 a B)\,\text{Cos}[c+d x]\,\text{Sec}\left[\frac{1}{2}(c+d x)\right]^2$$

$$\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]-(2\,A\,b-3\,a\,B)\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\,\text{Sin}[c+d\,x]\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$(2\,A\,b-3\,a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2+$$

$$\frac{a\,(-2\,A\,b+a\,(A+3\,(B+C)))\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}}-$$

$$\left.\frac{(a+b)\,(-2\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\frac{(-a+b)\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}}{\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\right)+$$

$$\frac{1}{3\,a^2\sqrt{a+b\,\text{Cos}[c+d\,x]}\sqrt{\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]}}$$

$$\left(-2\,(a+b)\,(-2\,A\,b+3\,a\,B)\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+2\,a\,(-2\,A\,b+a\,(A+3\,(B+C)))$$

$$\sqrt{\frac{\text{Cos}[c+d\,x]}{1+\text{Cos}[c+d\,x]}}\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]+$$

$$\left.(2\,A\,b-3\,a\,B)\,\text{Cos}[c+d\,x]\,(a+b\,\text{Cos}[c+d\,x])\,\text{Sec}\left[\frac{1}{2}(c+d\,x)\right]^2\,\text{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right)$$

$$\left.\left.\left(-\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]\,\text{Sec}[c+d\,x]\,\text{Sin}\left[\frac{1}{2}(c+d\,x)\right]+\text{Cos}\left[\frac{1}{2}(c+d\,x)\right]^2\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{3/2}}{\sqrt{a+b\,\text{Cos}[c+d\,x]}},\,x,\,7,\,0\right\}$$

$$-\frac{2 A (a+b) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{a d \sqrt{a+b \text{Cos}[c+d x]}} +$$

$$\frac{2 (A+B-C) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}} +$$

$$\frac{4 C \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}}{d \sqrt{a+b \text{Cos}[c+d x]}} +$$

$$\frac{2 A \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{a d}$$

$$\frac{2 A \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]} \text{Sin}[c+d x]}{a d} +$$

$$\frac{1}{a d \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}} 2 \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}$$

$$\Bigg(-a A \text{Tan}\left[\frac{1}{2}(c+d x)\right] - A b \text{Tan}\left[\frac{1}{2}(c+d x)\right] + 2 A b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3 + a A \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5 - A b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5 -$$

$$2 a C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 2 a C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$A (a+b) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + a (A+B-C) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \sqrt{\text{Sec}[c+d x]}}{\sqrt{a+b \text{Cos}[c+d x]}}, x, 7, 0\right\}$$

$$\frac{(a+b)\,C\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,(A-B)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{1}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,(2\,b\,B-a\,C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}$$

$$\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+\frac{C\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b\,d\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{b\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\Bigg(a\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-a\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$b\,C\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$4\,b\,B\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,a\,C\,\text{EllipticPi}\left[-1,\,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\,C\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+2\,b\,(A-B)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{4\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(a+b)\,(4\,b\,B-3\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\ \mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ -$$

$$\frac{1}{2\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}(4\,A\,b-a\,C+2\,b\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}+\frac{1}{2\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}$$

$$\left(8\,A\,b^2-4\,a\,b\,B+3\,a^2\,C+4\,b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticPi}\left[-1,\ \mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\ +$$

$$\frac{C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Sin}[c+d\,x]}{2\,b\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{(4\,b\,B-3\,a\,C)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{4\,b^2\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{C\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\mathrm{Sin}[2\,(c+d\,x)]}{4\,b\,d}\ -$$

$$\frac{1}{4\,b^2\,d\,\left(1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Bigg(-4\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+8\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-$$

$$6\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+4\,a\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+$$

$$3\,a\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+16\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\ -8\,a\,b\,B\,\mathrm{EllipticPi}\left[-1,\ -\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+8 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$16 A b^2\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-8 a b B\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+8 b^2 C\,\text{EllipticPi}\left[-1,-\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$(a+b)(-4 b B+3 a C)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2 b(4 A b-a C+2 b C)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{\sqrt{a+b\,\text{Cos}[c+d x]}\;\text{Sec}[c+d x]^{3/2}},\ x,\ 9,\ 0\right\}$$

$$\frac{1}{24 b^3 d \sqrt{a+b \operatorname{Cos}[c+d x]}} (a+b) \left(24 A b^2-18 a b B+15 a^2 C+16 b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]}$$

$$\sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{1}{12 b^2 d \sqrt{a+b \operatorname{Cos}[c+d x]}} \left(6 a b B-12 b^2 B-5 a^2 C-2 a b C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}-\frac{1}{4 b^3 d \sqrt{a+b \operatorname{Cos}[c+d x]}}$$

$$\left(8 a A b^2-6 a^2 b B-8 b^3 B+5 a^3 C+4 a b^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticPi}\left[-1, \operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{C \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{3 b d \operatorname{Sec}[c+d x]^{3/2}}+$$

$$\frac{(6 b B-5 a C) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Sin}[c+d x]}{12 b^2 d \sqrt{\operatorname{Sec}[c+d x]}}+\frac{\left(24 A b^2-18 a b B+15 a^2 C+16 b^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{24 b^3 d \sqrt{\operatorname{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \left(\frac{C \operatorname{Sin}[c+d x]}{12 b}+\frac{(6 b B-5 a C) \operatorname{Sin}[2(c+d x)]}{24 b^2}+\frac{C \operatorname{Sin}[3(c+d x)]}{12 b}\right)}{d}-$$

$$\frac{1}{24 b^3 d \left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}$$

$$\sqrt{\frac{1}{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-24 a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-24 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+18 a^2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+\right.$$

$$18 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+48 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-36 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+30 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$32 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+24 a A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-24 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-18 a^2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$18 a b^2 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+15 a^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-15 a^2 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+16 a b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$16 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-48 a A b^2 \operatorname{EllipticPi}\left[-1, -\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+36\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$48\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-48\,a\,A\,b^2\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$36\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+48\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-24\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$(a+b)\left(24 A b^2-18 a b B+15 a^2 C+16 b^2 C\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$2 b\left(12 b^2 B+5 a^2 C+2 a b(-3 B+C)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\left(a A+(A b+a B)\,\text{Cos}[c+d x]+b B\,\text{Cos}[c+d x]^2\right)\sqrt{\text{Sec}[c+d x]}}{\sqrt{a+b\,\text{Cos}[c+d x]}}, x, 7, 0\right\}$$

$$\frac{(a+b) B\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]}}{d\sqrt{a+b\,\text{Cos}[c+d x]}} +$$

$$\frac{1}{d\sqrt{a+b\,\text{Cos}[c+d x]}} 2(a A-A b-a B)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]} +$$

$$\frac{1}{d\sqrt{a+b\,\text{Cos}[c+d x]}} 2(2 A b+a B)\sqrt{\text{Cos}[c+d x]}\sqrt{1+\text{Cos}[c+d x]}\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d x]} + \frac{B\sqrt{a+b\,\text{Cos}[c+d x]}\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]}{d\sqrt{\text{Sec}[c+d x]}}$$

$$\Bigg(-a B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+2 b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+a B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$b B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2 a B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$4 A b \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2 a B \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$(a+b) B \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+2(A b+a(-A+B)) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(d\sqrt{\frac{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}\left(-1+\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \operatorname{Cos}[c+d x]+C \operatorname{Cos}[c+d x]^2\right) \operatorname{Sec}[c+d x]^{7/2}}{(a+b \operatorname{Cos}[c+d x])^{3/2}}, x, 8, 0\right\}$$

$$-\left(2\left(9a^4A+24a^2Ab^2-48Ab^4-25a^3bB+40ab^3B+15a^4C-30a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\right.$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/$$

$$\left(15a^4(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+\left(2\left(9a^3A-12a^2Ab+36aAb^2-48Ab^3+5a^3B-30a^2bB+40ab^2B+15a^3C-30a^2bC\right)\right.$$

$$\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(15a^3(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)-$$

$$\frac{2\left(9a^2Ab-24Ab^3-5a^3B+20ab^2B-15a^2bC\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{15a^3\left(a^2-b^2\right)d}+$$

$$\frac{2\left(Ab^2-abB+a^2C\right)\text{Sec}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^2A-6Ab^2+5abB-5a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{5/2}\,\text{Sin}[c+dx]}{5a^2\left(a^2-b^2\right)d}+$$

$$\frac{2\left(9a^4A+24a^2Ab^2-48Ab^4-25a^3bB+40ab^3B+15a^4C-30a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{15a^4\left(a^2-b^2\right)d}$$

$$\frac{1}{15\,a^4\,\left(a^2-b^2\right)\,d\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}$$

$$2\,\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}\,\left(\left(-48\,A\,b^4-25\,a^3\,b\,B+40\,a\,b^3\,B+6\,a^2\,b^2\,(4\,A-5\,C)+3\,a^4\,(3\,A+5\,C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\,\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)-$$

$$(a+b)\,\left(-48\,A\,b^4-25\,a^3\,b\,B+40\,a\,b^3\,B+6\,a^2\,b^2\,(4\,A-5\,C)+3\,a^4\,(3\,A+5\,C)\right)\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+a\,(a+b)$$

$$\left(-48\,A\,b^3+4\,a\,b^2\,(9\,A+10\,B)-6\,a^2\,b\,(2\,A+5\,(B+C))+a^3\,(9\,A+5\,(B+3\,C))\right)\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\,\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)+\frac{1}{d}$$

$$\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\left(\frac{2\,\left(9\,a^4\,A+24\,a^2\,A\,b^2-48\,A\,b^4-25\,a^3\,b\,B+40\,a\,b^3\,B+15\,a^4\,C-30\,a^2\,b^2\,C\right)\,\text{Sin}[c+d\,x]}{15\,a^4\,\left(a^2-b^2\right)}+\right.$$

$$\frac{2\,\text{Sec}[c+d\,x]\,(-9\,A\,b\,\text{Sin}[c+d\,x]+5\,a\,B\,\text{Sin}[c+d\,x])}{15\,a^3}+$$

$$\left.\frac{2\,\left(A\,b^4\,\text{Sin}[c+d\,x]-a\,b^3\,B\,\text{Sin}[c+d\,x]+a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)}{a^3\,\left(a^2-b^2\right)\,(a+b\,\text{Cos}[c+d\,x])}+\frac{2\,A\,\text{Sec}[c+d\,x]\,\text{Tan}[c+d\,x]}{5\,a^2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\,\text{Sec}[c+d\,x]^{5/2}}{(a+b\,\text{Cos}[c+d\,x])^{3/2}},\,x,\,7,\,0\right\}$$

$$\left(2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B-3a^2bC\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(a^2A-6aAb+8Ab^2+3a^2B-6abB+3a^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\right.$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/$$

$$\left(3a^2(a-b)d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+\frac{2\left(Ab^2-abB+a^2C\right)\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{a\left(a^2-b^2\right)d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(a^2A-4Ab^2+3abB-3a^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\,\text{Sec}[c+dx]^{3/2}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)d}-$$

$$\frac{2\left(5a^2Ab-8Ab^3-3a^3B+6ab^2B-3a^2bC\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)d}$$

$$\frac{1}{3a^3\left(a^2-b^2\right)d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}$$

$$2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\left(\left(8Ab^3+3a^3B-6ab^2B+a^2(-5Ab+3bC)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+dx)\right]\left(-1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)-$$

$$(a+b)\left(8Ab^3+3a^3B-6ab^2B+a^2(-5Ab+3bC)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+$$

$$a(a+b)\left(8Ab^2-6ab(A+B)+a^2(A+3(B+C))\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\right)+$$

$$\frac{\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(-5a^2Ab+8Ab^3+3a^3B-6ab^2B+3a^2bC\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)}-\frac{2\left(Ab^3\,\text{Sin}[c+dx]-ab^2B\,\text{Sin}[c+dx]+a^2bC\,\text{Sin}[c+dx]\right)}{a^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])}+\frac{2A\,\text{Tan}[c+dx]}{3a^2}\right)}{d}$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+dx]+C\,\text{Cos}[c+dx]^2\right)\text{Sec}[c+dx]^{3/2}}{(a+b\,\text{Cos}[c+dx])^{3/2}},\ x,\ 6,\ 0\right\}$$

$$-\frac{1}{a^2 (a-b) d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 \left(a^2 A-2 A b^2+a b B-a^2 C\right) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}} \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+$$

$$\frac{1}{a (a-b) d \sqrt{a+b \operatorname{Cos}[c+d x]}} 2 (a A-2 A b+a B-a C) \sqrt{\operatorname{Cos}[c+d x]} \sqrt{1+\operatorname{Cos}[c+d x]} \sqrt{\frac{a+b \operatorname{Cos}[c+d x]}{(a+b)(1+\operatorname{Cos}[c+d x])}}$$

$$\operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\operatorname{Sec}[c+d x]}+\frac{2 \left(A b^2-a b B+a^2 C\right) \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Sin}[c+d x]}{a \left(a^2-b^2\right) d \sqrt{a+b \operatorname{Cos}[c+d x]}}+$$

$$\frac{2 \left(a^2 A-2 A b^2+a b B-a^2 C\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]}{a^2 \left(a^2-b^2\right) d}$$

$$\frac{\sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]} \left(\frac{2 \left(a^2 A-2 A b^2+a b B-a^2 C\right) \operatorname{Sin}[c+d x]}{a^2 \left(a^2-b^2\right)}+\frac{2 \left(A b^2 \operatorname{Sin}[c+d x]-a b B \operatorname{Sin}[c+d x]+a^2 C \operatorname{Sin}[c+d x]\right)}{a \left(a^2-b^2\right)(a+b \operatorname{Cos}[c+d x])}\right)}{d}+$$

$$\left(2\left(-\frac{a A}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}+\frac{2 A b^2}{a \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}-\right.\right.$$

$$\frac{b B}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}+\frac{a C}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]} \sqrt{\operatorname{Sec}[c+d x]}}-$$

$$\frac{2 A b \sqrt{\operatorname{Sec}[c+d x]}}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{2 A b^3 \sqrt{\operatorname{Sec}[c+d x]}}{a^2 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{a B \sqrt{\operatorname{Sec}[c+d x]}}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\frac{b^2 B \sqrt{\operatorname{Sec}[c+d x]}}{a \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}-\frac{A b \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{2 A b^3 \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{a^2 \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}-$$

$$\left.\frac{b^2 B \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{a \left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}+\frac{b C \operatorname{Cos}[2(c+d x)] \sqrt{\operatorname{Sec}[c+d x]}}{\left(a^2-b^2\right) \sqrt{a+b \operatorname{Cos}[c+d x]}}\right) \sqrt{\operatorname{Cos}\left[\frac{1}{2}(c+d x)\right]^2 \operatorname{Sec}[c+d x]}$$

$$\left((a+b)\left(\left(2 A b^2-a b B+a^2(-A+C)\right) \operatorname{EllipticE}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]+\right.\right.$$

$$\left.a(-2 A b+a(A+B-C)) \operatorname{EllipticF}\left[\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]\right)$$

$$\left(\operatorname{Cos}[c+d x] \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{(a+b \operatorname{Cos}[c+d x]) \operatorname{Sec}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} \operatorname{Sec}[c+d x]+$$

$$\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg)\Bigg)\Bigg/$$

$$\Bigg(a^2 \left(a^2 - b^2\right) d \sqrt{a + b \text{Cos}[c + d x]} \left(\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2} \Bigg(\frac{1}{a^2 \left(a^2 - b^2\right) (a + b \text{Cos}[c + d x])^{3/2} \left(\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2}}$$

$$b \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]} \text{Sin}[c + d x] \Bigg((a + b) \Bigg(\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{EllipticE}\Bigg[\text{ArcSin}\Bigg[$$

$$\text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg], \frac{-a + b}{a + b}\Bigg] + a (-2 A b + a (A + B - C)) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right]\Bigg)$$

$$\left(\text{Cos}[c + d x] \text{Sec}\left[\frac{1}{2} (c + d x)\right]\right)^{3/2} \sqrt{\frac{(a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}{a + b}} \text{Sec}[c + d x] +$$

$$\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg) -$$

$$\frac{1}{a^2 \left(a^2 - b^2\right) \sqrt{a + b \text{Cos}[c + d x]} \left(\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2}} 3 \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]} \text{Tan}\left[\frac{1}{2} (c + d x)\right]$$

$$\Bigg((a + b) \Bigg(\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] +$$

$$a (-2 A b + a (A + B - C)) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right]\Bigg)$$

$$\left(\text{Cos}[c + d x] \text{Sec}\left[\frac{1}{2} (c + d x)\right]\right)^{3/2} \sqrt{\frac{(a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}{a + b}} \text{Sec}[c + d x] +$$

$$\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg) +$$

$$\Bigg(\Bigg((a + b) \Bigg(\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right] +$$

$$a (-2 A b + a (A + B - C)) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2} (c + d x)\right]\right], \frac{-a + b}{a + b}\right]\Bigg)$$

$$\left(\text{Cos}[c + d x] \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2} \sqrt{\frac{(a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^2}{a + b}} \text{Sec}[c + d x] +$$

$$\left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Tan}\left[\frac{1}{2} (c + d x)\right]\Bigg)$$

$$\left(-\text{Cos}\left[\frac{1}{2} (c + d x)\right] \text{Sec}[c + d x] \text{Sin}\left[\frac{1}{2} (c + d x)\right] + \text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x] \text{Tan}[c + d x]\right)\Bigg) \Big/$$

$$\Bigg(a^2 \left(a^2 - b^2\right) \sqrt{a + b \text{Cos}[c + d x]} \left(\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2} \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]}\Bigg) +$$

$$\frac{1}{a^2 \left(a^2 - b^2\right) \sqrt{a + b \text{Cos}[c + d x]} \left(\text{Sec}\left[\frac{1}{2} (c + d x)\right]^2\right)^{3/2}} 2 \sqrt{\text{Cos}\left[\frac{1}{2} (c + d x)\right]^2 \text{Sec}[c + d x]}$$

$$\Bigg(\frac{1}{2} \left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^6 -$$

$$b \left(2 A b^2 - a b B + a^2 (-A + C)\right) \text{Cos}[c + d x] \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Sin}[c + d x] \text{Tan}\left[\frac{1}{2} (c + d x)\right] -$$

$$\left(2 A b^2 - a b B + a^2 (-A + C)\right) (a + b \text{Cos}[c + d x]) \text{Sec}\left[\frac{1}{2} (c + d x)\right]^4 \text{Sin}[c + d x] \text{Tan}\left[\frac{1}{2} (c + d x)\right] +$$

$$2\left(2Ab^2-abB+a^2(-A+C)\right)\mathrm{Cos}[c+dx]\,(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^4\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2+\frac{3}{2}(a+b)$$

$$\left(\left(2Ab^2-abB+a^2(-A+C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+a(-2Ab+a(A+B-C))\,\mathrm{EllipticF}\left[\right.\right.$$

$$\left.\left.\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)\sqrt{\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}$$

$$\mathrm{Sec}[c+dx]\left(-\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sin}[c+dx]+\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right)+$$

$$\frac{1}{2\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}(a+b)\left(\left(2Ab^2-abB+a^2(-A+C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a(-2Ab+a(A+B-C))\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)\left(\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}$$

$$\mathrm{Sec}[c+dx]\left(-\frac{b\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Sin}[c+dx]}{a+b}+\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]}{a+b}\right)+$$

$$(a+b)\left(\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}$$

$$\mathrm{Sec}[c+dx]\left(\frac{a(-2Ab+a(A+B-C))\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+\right.$$

$$\left.\frac{\left(2Ab^2-abB+a^2(-A+C)\right)\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\sqrt{1-\frac{(-a+b)\,\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}}{2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}\right)+$$

$$(a+b)\left(\left(2Ab^2-abB+a^2(-A+C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]+\right.$$

$$\left.a(-2Ab+a(A+B-C))\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]\right)$$

$$\left.\left.\left.\left(\mathrm{Cos}[c+dx]\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{(a+b\,\mathrm{Cos}[c+dx])\,\mathrm{Sec}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\,\mathrm{Sec}[c+dx]\,\mathrm{Tan}[c+dx]\right)\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+dx]+C\,\mathrm{Cos}[c+dx]^2\right)\sqrt{\mathrm{Sec}[c+dx]}}{(a+b\,\mathrm{Cos}[c+dx])^{3/2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{1}{a\,(a-b)\,b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}\,+$$

$$\frac{2\,(A-B+C)\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{(a-b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,+$$

$$\frac{4\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\,\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\,\sqrt{\text{Sec}[c+d\,x]}}{b\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}\,-$$

$$\frac{2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{a\,b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\left(\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\mathrm{Sin}[c+d\,x]}{a\,b\left(a^2-b^2\right)}-\frac{2\left(A\,b^2\,\mathrm{Sin}[c+d\,x]-a\,b\,B\,\mathrm{Sin}[c+d\,x]+a^2\,C\,\mathrm{Sin}[c+d\,x]\right)}{b\left(a^2-b^2\right)\left(a+b\,\mathrm{Cos}[c+d\,x]\right)}\right)}{d}-$$

$$\frac{1}{b\left(a^3-a\,b^2\right)d\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\,2\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\Bigg(a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+2\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-2\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-$$

$$a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+2\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-2\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,a^3\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-2\,a\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$(a+b)\left(A\,b^2+a\,(-b\,B+a\,C)\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-a\,b\,(a+b)\,(A-B+C)\,\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2}{(a+b\,\mathrm{Cos}[c+d\,x])^{3/2}\sqrt{\mathrm{Sec}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\frac{1}{(a-b)\,b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\left(2\,A\,b^2-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;-$$

$$\frac{1}{(a-b)\,b\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(A\,b-b\,B+a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}\,\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}$$

$$\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;+\;\frac{1}{b^2\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}}\,2\,(2\,b\,B-3\,a\,C)\,\sqrt{\mathrm{Cos}[c+d\,x]}$$

$$\sqrt{1+\mathrm{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\mathrm{Cos}[c+d\,x]}{(a+b)\,(1+\mathrm{Cos}[c+d\,x])}}\;\mathrm{EllipticPi}\left[-1,\,\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\mathrm{Sec}[c+d\,x]}\;-$$

$$\frac{2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{b\,\left(a^2-b^2\right)\,d\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}}+\frac{\left(2\,A\,b^2-2\,a\,b\,B+3\,a^2\,C-b^2\,C\right)\,\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{b^2\,\left(a^2-b^2\right)\,d\,\sqrt{\mathrm{Sec}[c+d\,x]}}$$

$$\frac{\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}\,\left(\frac{2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\mathrm{Sin}[c+d\,x]}{b^2\,\left(-a^2+b^2\right)}+\frac{2\,\left(a\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^2\,b\,B\,\mathrm{Sin}[c+d\,x]+a^3\,C\,\mathrm{Sin}[c+d\,x]\right)}{b^2\,\left(a^2-b^2\right)\,(a+b\,\mathrm{Cos}[c+d\,x])}\right)}{d}+$$

$$\Bigg(2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$2\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-$$

$$b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]-4\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+4\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-6\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3+$$

$$2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^3-2\,a\,A\,b^2\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+2\,A\,b^3\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+2\,a^2\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$2\,a\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-3\,a^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+3\,a^2\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5+a\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-$$

$$b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-4\,a^2\,b\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+4\,b^3\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\;+$$

$$6 a^3 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 6 a b^2 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$4 a^2 b B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} + 4 b^3 B \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$6 a^3 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} - 6 a b^2 C \text{EllipticPi}\left[-1, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)\left(2 A b^2-2 a b B+3 a^2 C-b^2 C\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$2 b (a+b)(A b-b B+a C) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\left.\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right) \Big/$$

$$\left(b^2\left(-a^2+b^2\right) d \sqrt{\frac{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^4\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2}{(a+b \text{Cos}[c+d x])^{3/2} \text{Sec}[c+d x]^{3/2}}, x, 9, 0\right\}$$

$$-\left(\left(8 a A b^2-12 a^2 b B+4 b^3 B+15 a^3 C-7 a b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(4(a-b) b^3 d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\left(\left(4 A b^2-4 a b B+5 a^2 C-3 a b C+2 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\right) \Big/ \left(2(a-b) b^2 d \sqrt{a+b \text{Cos}[c+d x]}\right)+$$

$$\frac{1}{2 b^3 d \sqrt{a+b \text{Cos}[c+d x]}}\left(8 A b^2-12 a b B+15 a^2 C+4 b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b \text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}} \text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right],-\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}-$$

$$\frac{2\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{b\left(a^2-b^2\right) d \sqrt{a+b \text{Cos}[c+d x]} \text{Sec}[c+d x]^{3/2}}+\frac{\left(4 A b^2-4 a b B+5 a^2 C-b^2 C\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Sin}[c+d x]}{2 b^2\left(a^2-b^2\right) d \sqrt{\text{Sec}[c+d x]}}-$$

$$\frac{\left(8 a A b^2-12 a^2 b B+4 b^3 B+15 a^3 C-7 a b^2 C\right) \sqrt{a+b \text{Cos}[c+d x]} \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{4 b^3\left(a^2-b^2\right) d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{\sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}\left(\frac{2 a\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{b^3\left(a^2-b^2\right)}-\frac{2\left(a^2 A b^2 \text{Sin}[c+d x]-a^3 b B \text{Sin}[c+d x]+a^4 C \text{Sin}[c+d x]\right)}{b^3\left(a^2-b^2\right)(a+b \text{Cos}[c+d x])}+\frac{C \text{Sin}[2(c+d x)]}{4 b^2}\right)}{d}-$$

$$\left(-8 a^2 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]-8 a A b^3 \text{Tan}\left[\frac{1}{2}(c+d x)\right]+12 a^3 b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]+12 a^2 b^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]-\right.$$

$$4 a b^3 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]-4 b^4 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^4 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]-15 a^3 b C \text{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$7 a^2 b^2 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]+7 a b^3 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]+16 a A b^3 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3-24 a^2 b^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3+$$

$$8 b^4 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3+30 a^3 b C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3-14 a b^3 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^3+8 a^2 A b^2 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$8 a A b^3 \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-12 a^3 b B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+12 a^2 b^2 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+4 a b^3 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$4 b^4 B \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+15 a^4 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-15 a^3 b C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5-7 a^2 b^2 C \text{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$7\,a\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^5-16\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+16\,A\,b^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$24\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-24\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-$$

$$30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+22\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$8\,b^4\,C\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}-16\,a^2\,A\,b^2\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\,\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$16\,A\,b^4\,\mathrm{EllipticPi}\left[-1,\,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\,\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+24\,a^3\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$24\,a\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$22\,a^2\,b^2\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+8\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(-12\,a^2\,b\,B+4\,b^3\,B+a\,b^2\,(8\,A-7\,C)+15\,a^3\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$2\,b\,(a+b)\left(4\,A\,b^2+5\,a^2\,C+2\,b^2\,C-a\,b\,(4\,B+3\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)\Bigg/$$

$$\left(4\,b^3\left(a^2-b^2\right)d\sqrt{\frac{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}\left(-1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^4\right)\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\mathrm{Cos}[c+d\,x]+C\,\mathrm{Cos}[c+d\,x]^2\right)\mathrm{Sec}[c+d\,x]^{5/2}}{(a+b\,\mathrm{Cos}[c+d\,x])^{5/2}},\ x,\ 8,\ 0\right\}$$

$$\left(2\,(a+b)\,\left(8\,a^4\,A\,b-28\,a^2\,A\,b^3+16\,A\,b^5-3\,a^5\,B+15\,a^3\,b^2\,B-8\,a\,b^4\,B-6\,a^4\,b\,C+2\,a^2\,b^3\,C\right)\sqrt{\text{Cos}[c+d\,x]}\right.$$

$$\left.\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\right)\Big/$$

$$\left(3\,a^4\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-\frac{1}{9\,a^3\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}$$

$$16\left(-\frac{3}{8}\,a\,\left(a^4\,A+7\,a^2\,A\,b^2-4\,A\,b^4-6\,a^3\,b\,B+2\,a\,b^3\,B+3\,a^4\,C+a^2\,b^2\,C\right)+\right.$$

$$\left.\frac{3}{8}\,\left(8\,a^4\,A\,b-28\,a^2\,A\,b^3+16\,A\,b^5-3\,a^5\,B+15\,a^3\,b^2\,B-8\,a\,b^4\,B-6\,a^4\,b\,C+2\,a^2\,b^3\,C\right)\right)\sqrt{\text{Cos}[c+d\,x]}$$

$$\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\,-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}+$$

$$\frac{2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a\,\left(a^2-b^2\right)\,d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}}-$$

$$\frac{4\,\left(-\frac{3}{2}\,b^2\,\left(a^2\,A-2\,A\,b^2+a\,b\,B-a^2\,C\right)-2\,a^2\,\left(A\,b^2-a\,b\,B+a^2\,C\right)+\frac{3}{2}\,a^2\,b\,(-A\,b+a\,B-b\,C)\right)\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^2\,\left(a^2-b^2\right)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}+$$

$$\frac{2\,\left(a^4\,A-13\,a^2\,A\,b^2+8\,A\,b^4+8\,a^3\,b\,B-4\,a\,b^3\,B-5\,a^4\,C+a^2\,b^2\,C\right)\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\text{Sec}[c+d\,x]^{3/2}\,\text{Sin}[c+d\,x]}{3\,a^3\,\left(a^2-b^2\right)^2\,d}-$$

$$\frac{1}{3\,a^4\,\left(a^2-b^2\right)^2\,d}\,2\,\left(8\,a^4\,A\,b-28\,a^2\,A\,b^3+16\,A\,b^5-3\,a^5\,B+15\,a^3\,b^2\,B-8\,a\,b^4\,B-6\,a^4\,b\,C+2\,a^2\,b^3\,C\right)$$

$$\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]$$

$$\frac{1}{3 a^4 \left(a^2-b^2\right)^2 d \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)^{3/2} \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}}}$$

$$2 \sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}} \left(\left(-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B+2 a^2 b^3 (14 A-C)+a^4 (-8 A b+6 b C)\right)\right.$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right] \left(-1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \left(a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)-(a+b)$$

$$\left(-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B+2 a^2 b^3 (14 A-C)+a^4 (-8 A b+6 b C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$a (a+b) \left(-16 A b^4+4 a b^3 (3 A+2 B)+2 a^2 b^2 (8 A-3 B-C)+3 a^3 b (-3 A-3 B+C)+a^4 (A+3 (B+C))\right)$$

$$\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right)$$

$$\left.\sqrt{\frac{a+b+a \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\right)+\frac{1}{d} \sqrt{a+b \text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}$$

$$\left(\frac{2 \left(-8 a^4 A b+28 a^2 A b^3-16 A b^5+3 a^5 B-15 a^3 b^2 B+8 a b^4 B+6 a^4 b C-2 a^2 b^3 C\right) \text{Sin}[c+d x]}{3 a^4 \left(a^2-b^2\right)^2}-\right.$$

$$\frac{2 \left(A b^3 \text{Sin}[c+d x]-a b^2 B \text{Sin}[c+d x]+a^2 b C \text{Sin}[c+d x]\right)}{3 a^2 \left(a^2-b^2\right) (a+b \text{Cos}[c+d x])^2}-$$

$$\left(2 \left(11 a^2 A b^3 \text{Sin}[c+d x]-7 A b^5 \text{Sin}[c+d x]-8 a^3 b^2 B \text{Sin}[c+d x]+4 a b^4 B \text{Sin}[c+d x]+\right.\right.$$

$$\left.\left.5 a^4 b C \text{Sin}[c+d x]-a^2 b^3 C \text{Sin}[c+d x]\right)\right) \Big/ \left(3 a^3 \left(a^2-b^2\right)^2 (a+b \text{Cos}[c+d x])\right)+\left.\frac{2 A \text{Tan}[c+d x]}{3 a^3}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B \text{Cos}[c+d x]+C \text{Cos}[c+d x]^2\right) \text{Sec}[c+d x]^{3/2}}{(a+b \text{Cos}[c+d x])^{5/2}}, x, 7, 0\right\}$$

$$-\left(2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B-3a^4C-a^2b^2C\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/\left(3a^3(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+$$

$$\left(2\left(3a^3A-9a^2Ab-6aAb^2+8Ab^3+3a^3B+3a^2bB-2ab^2B-3a^3C-a^2bC\right)\sqrt{\text{Cos}[c+dx]}\sqrt{1+\text{Cos}[c+dx]}\right.$$

$$\left.\sqrt{\frac{a+b\,\text{Cos}[c+dx]}{(a+b)(1+\text{Cos}[c+dx])}}\,\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],-\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+dx]}\right)\Big/$$

$$\left(3a^2(a-b)^2(a+b)\,d\sqrt{a+b\,\text{Cos}[c+dx]}\right)+\frac{2\left(Ab^2-abB+a^2C\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+dx])^{3/2}}+$$

$$\frac{2\left(8a^2Ab^2-4Ab^4-5a^3bB+ab^3B+2a^4C+2a^2b^2C\right)\sqrt{\text{Sec}[c+dx]}\,\text{Sin}[c+dx]}{3a^2\left(a^2-b^2\right)^2d\sqrt{a+b\,\text{Cos}[c+dx]}}+$$

$$\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B-3a^4C-a^2b^2C\right)\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]}{3a^3\left(a^2-b^2\right)^2d}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+dx]}\sqrt{\text{Sec}[c+dx]}\left(\frac{2\left(3a^4A-15a^2Ab^2+8Ab^4+6a^3bB-2ab^3B-3a^4C-a^2b^2C\right)\text{Sin}[c+dx]}{3a^3\left(a^2-b^2\right)^2}+\right.$$

$$\frac{2\left(Ab^2\,\text{Sin}[c+dx]-abB\,\text{Sin}[c+dx]+a^2C\,\text{Sin}[c+dx]\right)}{3a\left(a^2-b^2\right)(a+b\,\text{Cos}[c+dx])^2}+$$

$$\left(2\left(8a^2Ab^2\,\text{Sin}[c+dx]-4Ab^4\,\text{Sin}[c+dx]-5a^3bB\,\text{Sin}[c+dx]+ab^3B\,\text{Sin}[c+dx]+\right.\right.$$

$$\left.\left.\left.2a^4C\,\text{Sin}[c+dx]+2a^2b^2C\,\text{Sin}[c+dx]\right)\right)\Big/\left(3a^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+dx])\right)\right)+$$

$$\frac{1}{3a^3\left(a^2-b^2\right)^2d\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}}\,2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}}$$

$$\left(\left(8Ab^4+6a^3bB-2ab^3B+3a^4(A-C)-a^2b^2(15A+C)\right)\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right.$$

$$\left(-1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)-$$

$$(a+b)\left(8Ab^4+6a^3bB-2ab^3B+3a^4(A-C)-a^2b^2(15A+C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}+$$

$$a(a+b)\left(8Ab^3-2ab^2(3A+B)+3a^3(A+B-C)-a^2b(9A-3B+C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+dx)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+dx)\right]^2}{a+b}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\left(A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2\right)\sqrt{\text{Sec}[c+d\,x]}}{(a+b\,\text{Cos}[c+d\,x])^{5/2}},\ x,\ 6,\ 0\right\}$$

$$-\left(2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B+4\,a^2\,b\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\right)\Big/\left(3\,a^2\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\left(2\left(3\,a^2\,A+3\,a\,A\,b-2\,A\,b^2-3\,a^2\,B-a\,b\,B+a^2\,C+3\,a\,b\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\right)\Big/\left(3\,a\,(a-b)^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Sin}[c+d\,x]}{3\,a\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}[c+d\,x]}}-\frac{2\left(6\,a^2\,A\,b-2\,A\,b^3-3\,a^3\,B-a\,b^2\,B+4\,a^2\,b\,C\right)\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a^2\,(a-b)\,(a+b)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(-\frac{2\left(-6\,a^2\,A\,b+2\,A\,b^3+3\,a^3\,B+a\,b^2\,B-4\,a^2\,b\,C\right)\text{Sin}[c+d\,x]}{3\,a^2\left(a^2-b^2\right)^2}-\frac{2\left(A\,b^2\,\text{Sin}[c+d\,x]-a\,b\,B\,\text{Sin}[c+d\,x]+a^2\,C\,\text{Sin}[c+d\,x]\right)}{3\,b\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\left(2\left(-5\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+A\,b^4\,\text{Sin}[c+d\,x]+2\,a^3\,b\,B\,\text{Sin}[c+d\,x]+2\,a\,b^3\,B\,\text{Sin}[c+d\,x]+\right.\right.$$

$$\left.\left.\left.a^4\,C\,\text{Sin}[c+d\,x]-5\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)\right)\Big/\left(3\,a\,b\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])\right)\right)+$$

$$\frac{1}{3\left(a^3-a\,b^2\right)^2 d\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\,2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\left(-\left(2\,A\,b^3+3\,a^3\,B+a\,b^2\,B-2\,a^2\,b\,(3\,A+2\,C)\right)\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right.$$

$$\left(-1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\left(a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)+$$

$$(a+b)\left(2\,A\,b^3+3\,a^3\,B+a\,b^2\,B-2\,a^2\,b\,(3\,A+2\,C)\right)\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}+$$

$$a\,(a+b)\left(-2\,A\,b^2+a^2\,(3\,A-3\,B+C)+a\,b\,(3\,A-B+3\,C)\right)\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ \frac{-a+b}{a+b}\right]$$

$$\left.\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}}\right)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d\,x]+C\,\text{Cos}[c+d\,x]^2}{(a+b\,\text{Cos}[c+d\,x])^{5/2}\sqrt{\text{Sec}[c+d\,x]}},\ x,\ 8,\ 0\right\}$$

$$\left(2\left(3\,a^2\,A\,b^2+A\,b^4-4\,a\,b^3\,B-3\,a^4\,C+7\,a^2\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\left.\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\right)\Big/\left(3\,a\,(a-b)^2\,b^2\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)-$$

$$\left(2\left(3\,a\,A\,b+A\,b^2-a\,b\,B-3\,b^2\,B-2\,a^2\,C+3\,a\,b\,C+3\,b^2\,C\right)\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\right.$$

$$\left.\text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}\right)\Big/\left(3\,(a-b)^2\,b\,(a+b)\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\right)+$$

$$\frac{4\,C\,\sqrt{\text{Cos}[c+d\,x]}\,\sqrt{1+\text{Cos}[c+d\,x]}\,\sqrt{\frac{a+b\,\text{Cos}[c+d\,x]}{(a+b)\,(1+\text{Cos}[c+d\,x])}}\,\text{EllipticPi}\left[-1,\ \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\ -\frac{a-b}{a+b}\right]\sqrt{\text{Sec}[c+d\,x]}}{b^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}}-$$

$$\frac{2\left(A\,b^2-a\,b\,B+a^2\,C\right)\text{Sin}[c+d\,x]}{3\,b\left(a^2-b^2\right)d\,(a+b\,\text{Cos}[c+d\,x])^{3/2}\sqrt{\text{Sec}[c+d\,x]}}+$$

$$\frac{2\left(3\,a^2\,A\,b^2+A\,b^4-4\,a\,b^3\,B-3\,a^4\,C+7\,a^2\,b^2\,C\right)\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]}{3\,a\,(a-b)\,b^2\,(a+b)^2\,d\,\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\text{Cos}[c+d\,x]}\,\sqrt{\text{Sec}[c+d\,x]}$$

$$\left(\frac{2\left(-3\,a^2\,A\,b^2-A\,b^4+4\,a\,b^3\,B+3\,a^4\,C-7\,a^2\,b^2\,C\right)\text{Sin}[c+d\,x]}{3\,a\,b^2\left(a^2-b^2\right)^2}+\frac{2\left(a\,A\,b^2\,\text{Sin}[c+d\,x]-a^2\,b\,B\,\text{Sin}[c+d\,x]+a^3\,C\,\text{Sin}[c+d\,x]\right)}{3\,b^2\left(a^2-b^2\right)(a+b\,\text{Cos}[c+d\,x])^2}+\right.$$

$$\left(2\left(2\,a^2\,A\,b^2\,\text{Sin}[c+d\,x]+2\,A\,b^4\,\text{Sin}[c+d\,x]+a^3\,b\,B\,\text{Sin}[c+d\,x]-5\,a\,b^3\,B\,\text{Sin}[c+d\,x]-\right.\right.$$

$$\left.\left.\left.4\,a^4\,C\,\text{Sin}[c+d\,x]+8\,a^2\,b^2\,C\,\text{Sin}[c+d\,x]\right)\right)\Big/\left(3\,b^2\left(a^2-b^2\right)^2(a+b\,\text{Cos}[c+d\,x])\right)\right)-$$

$$\frac{1}{3\,a\,b^2\left(a^2-b^2\right)^2 d\left(1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{1+\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}}\,2\sqrt{\frac{1}{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}}$$

$$\Big(-3 a^3 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-3 a^2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-A b^5 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+$$

$$4 a^2 b^3 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+4 a b^4 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+3 a^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+3 a^4 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-$$

$$7 a^3 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]-7 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]+6 a^2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+2 A b^5 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-$$

$$8 a b^4 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3-6 a^4 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+14 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^3+3 a^3 A b^2 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$3 a^2 A b^3 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+a A b^4 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-A b^5 \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-4 a^2 b^3 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+$$

$$4 a b^4 B \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-3 a^5 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+3 a^4 b C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+7 a^3 b^2 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5-$$

$$7 a^2 b^3 C \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^5+6 a^5 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-12 a^3 b^2 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+$$

$$6 a b^4 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+6 a^5 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}-$$

$$12 a^3 b^2 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2\sqrt{1-\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}$$

$$\sqrt{\frac{a+b+a \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b \operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}+6 a b^4 C \operatorname{EllipticPi}\left[-1,-\operatorname{ArcSin}\left[\operatorname{Tan}\left[\frac{1}{2}(c+d x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} +$$

$$(a+b)\left(-A b^4+4 a b^3 B+3 a^4 C-a^2 b^2 (3 A+7 C)\right) \text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}} -$$

$$a b (a+b)\left(a b (-3 A+B-3 C)+2 a^2 C-b^2 (A-3 B+3 C)\right) \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}\left(1+\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2\right) \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}(c+d x)\right]^2}{a+b}}\Bigg)$$

Incorrect antiderivative:

$$\left\{\frac{A+B\,\text{Cos}[c+d x]+C\,\text{Cos}[c+d x]^2}{(a+b\,\text{Cos}[c+d x])^{5/2}\,\text{Sec}[c+d x]^{3/2}}, x, 9, 0\right\}$$

$$-\Bigg(\left(8 A b^4+6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticE}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\Bigg) \Big/ \left(3 (a-b)^2 b^3 (a+b) d \sqrt{a+b\,\text{Cos}[c+d x]}\right) +$$

$$\Bigg(2\left(a A b^2+3 A b^3+2 a^2 b B-3 a b^2 B-3 b^3 B-5 a^3 C+3 a^2 b C+6 a b^2 C\right) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]}$$

$$\sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}\ \text{EllipticF}\left[\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]}\Bigg) \Big/$$

$$\left(3 (a-b)^2 b^2 (a+b) d \sqrt{a+b\,\text{Cos}[c+d x]}\right) + \frac{1}{b^3 d \sqrt{a+b\,\text{Cos}[c+d x]}}$$

$$2 (2 b B-5 a C) \sqrt{\text{Cos}[c+d x]} \sqrt{1+\text{Cos}[c+d x]} \sqrt{\frac{a+b\,\text{Cos}[c+d x]}{(a+b)(1+\text{Cos}[c+d x])}}$$

$$\text{EllipticPi}\left[-1, \text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}(c+d x)\right]\right], -\frac{a-b}{a+b}\right] \sqrt{\text{Sec}[c+d x]} -$$

$$\frac{2\left(A b^2-a b B+a^2 C\right) \text{Sin}[c+d x]}{3 b\left(a^2-b^2\right) d (a+b\,\text{Cos}[c+d x])^{3/2}\,\text{Sec}[c+d x]^{3/2}} +$$

$$\frac{2\left(a^2 A b^2+3 A b^4+2 a^3 b B-6 a b^3 B-5 a^4 C+9 a^2 b^2 C\right) \text{Sin}[c+d x]}{3 b^2\left(a^2-b^2\right)^2 d \sqrt{a+b\,\text{Cos}[c+d x]} \sqrt{\text{Sec}[c+d x]}} -$$

$$\frac{\left(8 A b^4+6 a^3 b B-14 a b^3 B-15 a^4 C+26 a^2 b^2 C-3 b^4 C\right) \sqrt{a+b\,\text{Cos}[c+d x]}\ \text{Tan}\left[\frac{1}{2}(c+d x)\right]}{3 b^3\left(a^2-b^2\right)^2 d \sqrt{\text{Sec}[c+d x]}}$$

$$\frac{1}{d}\sqrt{a+b\,\mathrm{Cos}[c+d\,x]}\,\sqrt{\mathrm{Sec}[c+d\,x]}$$

$$\left(-\frac{2\left(-4\,A\,b^4-3\,a^3\,b\,B+7\,a\,b^3\,B+6\,a^4\,C-10\,a^2\,b^2\,C\right)\mathrm{Sin}[c+d\,x]}{3\,b^3\left(a^2-b^2\right)^2}-\frac{2\left(a^2\,A\,b^2\,\mathrm{Sin}[c+d\,x]-a^3\,b\,B\,\mathrm{Sin}[c+d\,x]+a^4\,C\,\mathrm{Sin}[c+d\,x]\right)}{3\,b^3\left(a^2-b^2\right)(a+b\,\mathrm{Cos}[c+d\,x])^2}+\right.$$

$$\left(2\left(a^3\,A\,b^2\,\mathrm{Sin}[c+d\,x]-5\,a\,A\,b^4\,\mathrm{Sin}[c+d\,x]-4\,a^4\,b\,B\,\mathrm{Sin}[c+d\,x]+8\,a^2\,b^3\,B\,\mathrm{Sin}[c+d\,x]+\right.\right.$$

$$\left.\left.\left.7\,a^5\,C\,\mathrm{Sin}[c+d\,x]-11\,a^3\,b^2\,C\,\mathrm{Sin}[c+d\,x]\right)\right)\Big/\left(3\,b^3\left(a^2-b^2\right)^2(a+b\,\mathrm{Cos}[c+d\,x])\right)\right)-$$

$$\frac{1}{3\,b^3\left(a^2-b^2\right)^2 d\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)^{3/2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}}\sqrt{\frac{1}{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}}$$

$$\left(8\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+8\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+6\,a^4\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+6\,a^3\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-\right.$$

$$14\,a^2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-14\,a\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-15\,a^5\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-15\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+$$

$$26\,a^3\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]+26\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-3\,a\,b^4\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-3\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]-$$

$$16\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-12\,a^3\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+28\,a\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+$$

$$30\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-52\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3+6\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^3-8\,a\,A\,b^4\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$8\,A\,b^5\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-6\,a^4\,b\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+6\,a^3\,b^2\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+14\,a^2\,b^3\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$14\,a\,b^4\,B\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+15\,a^5\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-15\,a^4\,b\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-$$

$$26\,a^3\,b^2\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+26\,a^2\,b^3\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+3\,a\,b^4\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5-3\,b^5\,C\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^5+$$

$$12\,a^4\,b\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-24\,a^2\,b^3\,B\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}+$$

$$12\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} - 30\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} +$$

$$60\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right] \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} - 30\, a\, b^4\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} +$$

$$12\, a^4\, b\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} - 24\, a^2\, b^3\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} +$$

$$12\, b^5\, B\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} - 30\, a^5\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right]$$

$$\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2} \sqrt{\frac{a+b+a\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2-b\,\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}{a+b}} +$$

$$60\, a^3\, b^2\, C\, \text{EllipticPi}\left[-1,\, -\text{ArcSin}\left[\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]\right],\, \frac{-a+b}{a+b}\right] \text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2 \sqrt{1-\text{Tan}\left[\frac{1}{2}\,(c+d\,x)\right]^2}$$

$$\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-30\,a\,b^4\,C\,\mathrm{EllipticPi}\left[-1,-\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$(a+b)\left(-8\,A\,b^4-6\,a^3\,b\,B+14\,a\,b^3\,B+15\,a^4\,C-26\,a^2\,b^2\,C+3\,b^4\,C\right)\mathrm{EllipticE}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}-$$

$$2\,b\,(a+b)\left(3\,b^3\,(A-B)-5\,a^3\,C+a^2\,b\,(2\,B+3\,C)+a\,b^2\,(A-3\,B+6\,C)\right)\mathrm{EllipticF}\left[\mathrm{ArcSin}\left[\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]\right],\frac{-a+b}{a+b}\right]$$

$$\sqrt{1-\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}\left(1+\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2\right)\sqrt{\frac{a+b+a\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2-b\,\mathrm{Tan}\left[\frac{1}{2}(c+d\,x)\right]^2}{a+b}}\Bigg)$$