$$\frac{a_{0}\,\mathcal{F}}{2}+\frac{1}{2}\,c_{8}\,\mathcal{F}^{(13)}{}_{mn}\;\mathcal{F}^{(13)mn}-\frac{1}{2}\,c_{8}\,\mathcal{F}^{(13)mn}\;\mathcal{F}^{(13)}{}_{nm} \tag{1}$$

$$-\frac{1}{2}\,a_{0}\,\mathcal{A}^{abc}\;\mathcal{A}_{bca}+\frac{1}{2}\,a_{0}\,\mathcal{A}^{a}{}_{a}{}^{b}\;\mathcal{A}^{c}{}_{bc}-\frac{1}{4}\,a_{0}\,h^{c}{}_{c}\,\partial_{b}\mathcal{A}^{a}{}_{a}{}^{b}+\frac{1}{4}\,a_{0}\,h^{c}{}_{c}\,\partial_{b}\mathcal{A}^{ab}{}_{a}-\frac{1}{2}\,a_{0}\,h_{ac}\,\partial_{b}\mathcal{A}^{abc}+\frac{1}{2}\,a_{0}\,h_{bc}\,\partial^{c}\mathcal{A}^{a}{}_{a}{}^{b}-$$
$$\frac{1}{2}\,c_{8}\,\partial_{b}\mathcal{A}^{d}{}_{dc}\,\partial^{c}\mathcal{A}^{a}{}_{a}{}^{b}+\frac{1}{2}\,c_{8}\,\partial_{c}\mathcal{A}^{d}{}_{db}\,\partial^{c}\mathcal{A}^{a}{}_{a}{}^{b}+\frac{1}{2}\,c_{8}\,\partial_{b}\mathcal{A}^{abc}\,\partial_{d}\mathcal{A}_{a}{}^{d}{}_{c}+c_{8}\,\partial^{c}\mathcal{A}^{a}{}_{a}{}^{b}\,\partial_{d}\mathcal{A}_{b}{}^{d}{}_{c}-\frac{1}{2}\,c_{8}\,\partial_{b}\mathcal{A}^{abc}\,\partial_{d}\mathcal{A}_{c}{}^{d}{}_{a}-c_{8}\,\partial^{c}\mathcal{A}^{a}{}_{a}{}^{b}\,\partial_{d}\mathcal{A}_{c}{}^{d}{}_{b} \tag{2}$$