Para la particular

$$W=\begin{bmatrix} y_1 & y_2 \\ y_1' & y_2' \end{bmatrix}=\begin{bmatrix} Cos3x & Sin3x \\ -3Sin3x & 3Cos3x \end{bmatrix}=3Cos^2 3x+3Sin^2 3x=3[Cos^2 3x+Sin^2 3x]=3$$

$$W_1=\begin{bmatrix} 0 & Sin3x \\ \frac{1}{4}Csc3x & Cos3x \end{bmatrix}=-\frac{1}{4}Sin3xCsc3x=\frac{-1}{4}$$

$$W_2=\begin{bmatrix} Cos3x & 0 \\ -3Sin3x & \frac{1}{4}Csc3x \end{bmatrix}=\frac{1}{4}Cos3xCsc3x=\frac{1}{4}\frac{Cos3x}{Sin3x}$$

$$u_1(x)=\int\frac{\frac{-1}{4}}{3}dx=-\frac{1}{12}\int dx=-\frac{x}{12}$$

$$u_2(x)=\int\frac{\left(\frac{1}{4}\frac{Cos3x}{Sin3x}\right)dx}{3}=+\frac{1}{12}\int\frac{Cos3x}{Sin3x}dx=+\frac{1}{12}\frac{1}{3}\int\frac{du}{u}=+\frac{1}{36}ln|Sen3x|$$

$$\therefore y_p(x)=Cos3x(-\frac{x}{12})+Sin3x(+\frac{1}{36}ln|Sen3x|)=-\frac{x}{12}Cos3x+\frac{1}{36}Sin3xln|Sen3x|$$

Y la solución general será

$$y_g=y_h+y_p=c_1Cos3x+c_2Sin3x-\frac{x}{12}Cos3x+\frac{1}{36}Sin3xln|Sen3x|$$