Lagrangian density

$$\frac{1}{2}\,\alpha\,\partial_{\beta}h^{\chi}{}_{\chi}\,\partial^{\beta}h^{\alpha}{}_{\alpha}+\beta\,\partial_{\alpha}h^{\alpha\beta}\,\partial_{\chi}h_{\beta}{}^{\chi}-\alpha\,\partial^{\beta}h^{\alpha}{}_{\alpha}\,\partial_{\chi}h_{\beta}{}^{\chi}-\frac{1}{2}\,\alpha\,\partial_{\chi}h_{\alpha\beta}\,\partial^{\chi}h^{\alpha\beta}$$

Added source term: $h^{\alpha\beta}\,\mathcal{T}_{\alpha\beta}$

$$\begin{array}{c|c} & h^{\#1}_{1^-}{}_{\alpha} \\ \hline h^{\#1}_{1^-}\dagger^{\alpha} & \frac{1}{2}(-\alpha+\beta)\,k^2 \end{array}$$

$$\begin{array}{c|c} & \mathcal{T}^{\#1}_{2^+}{}_{\alpha\beta} \\ \hline \mathcal{T}^{\#1}_{2^+}\dagger^{\alpha\beta} & -\frac{2}{\alpha k^2} \end{array}$$

$$\begin{array}{c|c} & \mathcal{T}^{\#1}_{1^-}{}_{\alpha} \\ \hline \mathcal{T}^{\#1}_{1^-}\dagger^{\alpha} & -\frac{2}{(\alpha-\beta)\,k^2} \end{array}$$

$$\begin{array}{c|cc} & \mathcal{T}^{\#1}_{0^+} & \mathcal{T}^{\#2}_{0^+} \\ \hline \mathcal{T}^{\#1}_{0^+}\dagger & \frac{1}{\alpha k^2} & 0 \\ \mathcal{T}^{\#2}_{0^+}\dagger & 0 & \frac{1}{(-\alpha+\beta)\,k^2} \end{array}$$

$$\begin{array}{c|cc} & h^{\#1}_{0^+} & h^{\#2}_{0^+} \\ \hline h^{\#1}_{0^+}\dagger & \alpha\,k^2 & 0 \\ h^{\#2}_{0^+}\dagger & 0 & (-\alpha+\beta)\,k^2 \end{array}$$

$$\begin{array}{c|c} & h^{\#1}_{2^+}{}_{\alpha\beta} \\ \hline h^{\#1}_{2^+}\dagger^{\alpha\beta} & -\frac{\alpha k^2}{2} \end{array}$$

(No source constraints)

(No massive particles)

Unitarity conditions
(Unitarity is demonstrably impossible)

Hexic pole	
Pole residue:	$0<\frac{2\alpha+\beta}{\alpha^2-\alpha\beta}$ && $\frac{2\alpha+\beta}{\alpha^2-\alpha\beta}>0$
Polarisations:	1

Quadratic pole	
Pole residue:	$\frac{-2\alpha+\beta+\sqrt{20\alpha^2-36\alpha\beta+17\beta^2}}{\alpha(\alpha-\beta)}>0$
Polarisations:	1

Quadratic pole	
Pole residue:	$-\frac{1}{\alpha}+\frac{1}{-\alpha+\beta}>0$
Polarisations:	2

Quadratic pole	
Pole residue:	$-\frac{1}{\alpha}>0$
Polarisations:	2

Quadratic pole	
Pole residue:	$\frac{1}{\alpha}+\frac{5}{\alpha-\beta}>0$
Polarisations:	1

Quadratic pole	
Pole residue:	$\frac{1}{\alpha}+\frac{1}{\alpha-\beta}>0$
Polarisations:	2

Quartic pole	
Pole residue:	$0<\frac{6\alpha+3\beta-\sqrt{3}\sqrt{12\alpha^2+12\alpha\beta+19\beta^2+64(\alpha-\beta)^2p^2}}{\alpha(\alpha-\beta)}$ && $\frac{6\alpha+3\beta-\sqrt{3}\sqrt{12\alpha^2+12\alpha\beta+19\beta^2+64(\alpha-\beta)^2p^2}}{\alpha(\alpha-\beta)}>0$
Polarisations:	1

Quartic pole	
Pole residue:	$0<\frac{6\alpha+3\beta+\sqrt{3}\sqrt{12\alpha^2+12\alpha\beta+19\beta^2+64(\alpha-\beta)^2p^2}}{\alpha(\alpha-\beta)}$ && $\frac{6\alpha+3\beta+\sqrt{3}\sqrt{12\alpha^2+12\alpha\beta+19\beta^2+64(\alpha-\beta)^2p^2}}{\alpha(\alpha-\beta)}>0$
Polarisations:	1

Quadratic pole	
Pole residue:	$-\frac{2\alpha-\beta+\sqrt{20\alpha^2-36\alpha\beta+17\beta^2}}{\alpha^2-\alpha\beta}>0$
Polarisations:	1

Quartic pole	
Pole residue:	$0<\frac{\beta}{\alpha^2-\alpha\beta}$ && $\frac{\beta}{\alpha^2-\alpha\beta}>0$
Polarisations:	2

Quadratic pole	
Pole residue:	$-\frac{1}{\alpha}+\frac{5}{-\alpha+\beta}>0$
Polarisations:	1