$$R^i_{jkl} = \tilde{R}^i_{jkl} + \sum_\alpha h^\alpha_{ik} h^\alpha_{jl} - h^\alpha_{il} h^\alpha_{jk},$$

$$h^\alpha_{ij,k} = h^\alpha_{ik,j} + \tilde{R}^\alpha_{ikj},$$

$$^\perp R^\alpha_{\beta jk} = \tilde{R}^\alpha_{\beta jk} + \sum_i h^\alpha_{ij} h^\beta_{ik} - h^\alpha_{ik} h^\beta_{ij}.$$