$x_{c}(t) - \xi_{\chi}(0) = \mathbf{I} \mathbf{a}_{\xi\chi 0} \delta \tau = \mathbf{a}_{\xi\chi 0} \tau = (12 \,\mu \,\mathbf{b} \mathbf{b}^{-1}) \tau, \qquad 0 < \tau < \tau_{1} = 1 \,\mathbf{b}$