E_i, E_o = MODULUS OF ELASTICITY = 30×10^6 PSI $l = 36.846''$

D_o = OUTER SLEEVE DIA = $26''$

D_c = INTERFACE / SHAFT DIA = $16.9''$ $\mu = 0.35$

U_o, U_i = POISSON'S RATIO = 0.3

X = TOTAL INTERFERENCE = 0.008''

P_c = INTERFERENCE PRESSURE $D_i = 0$ FOR SOLID SHAFT

$$P_c = \frac{X}{D_c\left[\left[\dfrac{D_c^2+D_i^2}{E_i(D_c^2-D_i^2)}\right]+\left[\dfrac{D_o^2+D_c^2}{E_o(D_o^2-D_c^2)}\right]-\left[\dfrac{U_i+U_o}{E_i \; E_o}\right]\right]}$$

P_c = 5862 PSI

STRESS AT SLEEVE I.D. = σ_h = $P_c \times \left(\dfrac{\left(\frac{D_o}{2}\right)^2+\left(\frac{D_c}{2}\right)^2}{\left(\frac{D_o}{2}\right)^2-\left(\frac{D_c}{2}\right)^2}\right)$ = 14440 PSI   USING THE ABOVE FIGURES

TORQUE = $2\pi \mu l P_c \left(\frac{D_c}{2}\right)^2$ = 33915442.87 lbf·in