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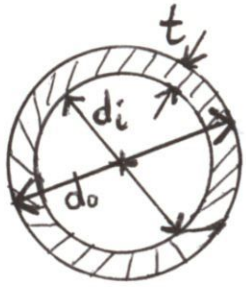

$p = 4{,}000\ psi$
$d_i = 10\ in$
$t = 0.75\ in$
$d_o = d_i + 2t$
$= 10\ in + 2(0.75\ in)$
$d_o = 11.5\ in$

$r = \frac{d_i}{2} = \frac{10\ in}{2} = 5\ in$

(a) Axial stress, σ_a

$$\sigma_a = \frac{pr}{2t} = \frac{(4{,}000\ psi)(5\ in)}{2(0.75\ in)} = 13.3\ ksi$$

(b) Hoop stress, σ_h

$$\sigma_h = \frac{pr}{t} = \frac{(4{,}000\ psi)(5\ in)}{(0.75\ in)} = 26.7\ ksi$$