



$$P_2 = \frac{125 \text{ ft-lbs}}{\frac{850''}{2 \times 12}} = 3529.4 \text{ lbs}$$

Assume  $\mu = 0.25$

$$F_1 = \frac{P_2}{0.25} = \frac{3529.4}{0.25} = 14117.646 \text{ lbs}$$