

$$\sum M_c = 0$$

$$308.65 * 31.87 - F_p \sin 85^\circ * 7.87 = 0$$

$$F_p = \frac{308.65 * 31.87}{\sin 85^\circ * 7.87} = 1254.67 \text{ lbs}$$

$$\uparrow \sum F_y = 0$$

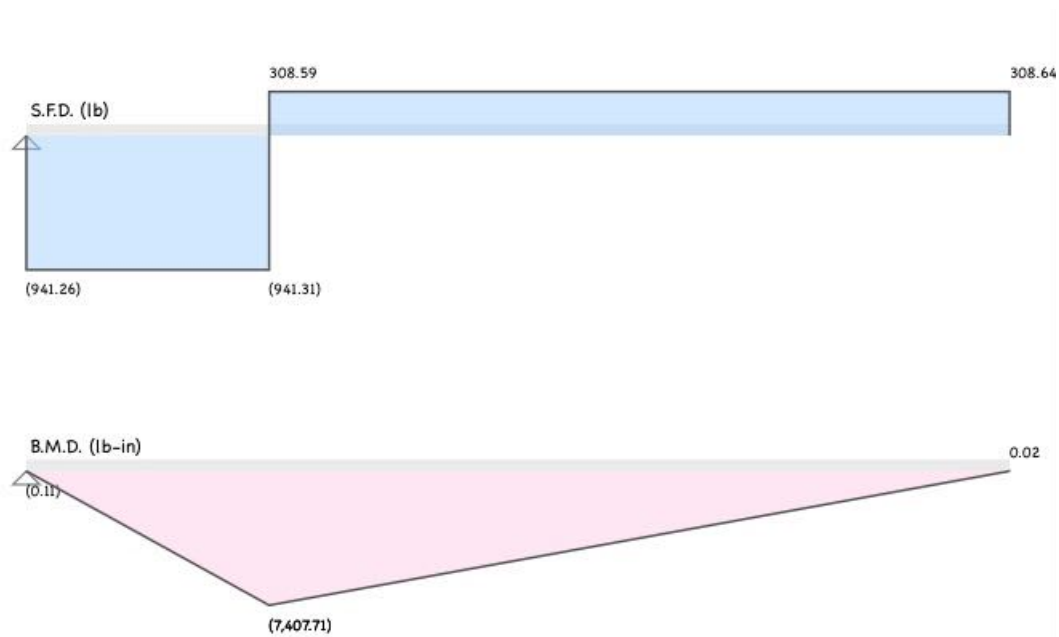
$$F_p * \sin 85^\circ - C_y - 308.65 = 0$$

$$C_y = 941.24 \text{ lbs}$$

$$\rightarrow \sum F_x = 0$$

$$C_x - F_p * \cos 85^\circ = 0$$

$$C_x = 109.35 \text{ lbs}$$



Considerando un factor de dos calculo el módulo de sección

$$\sigma_{b_{allow}} = \frac{.66 * S_y}{FS} = \frac{.66 * 46.1 \text{ ksi}}{2} = 15.21 \text{ ksi}$$

$$M_{m\acute{a}x} = 7.4 \text{ ksi}$$

$$\sigma_{allow} = \frac{M_{\acute{m}ax}}{S}$$

$$S = \frac{M_{\acute{m}ax}}{\sigma_{allow}} = \frac{7.4}{15.21} = .4865$$