

$$H_s = T \cdot (d_f - y_B)$$

$$T = A_s f_s$$

$$H_s = A_s \cdot \frac{f_s}{M_s} \cdot (d_f - y_B)$$

$$f_s = \frac{M_s}{A_s \cdot (d_f - y_B)}$$

$$f_s = \frac{123.99 \times 10^5}{17 \times 3.10 \times 144.98} = 2246.92 \text{ ksf/cm}^2 \leq 0.6 f_y$$

$$0.6 \times 4200 = 2520 \text{ ksf/cm}^2$$

$$f_s \leq 0.6 f_y$$

En el caso que "f\_s" sea mayor q1 0.6 f\_y, se toma el 0.6 f\_y

$$S_{max} = \frac{125600}{B_s f_s} - \frac{2 \times dc}{80}$$

$$B_s = 1 + \frac{dc}{0.7(h - dc)}$$

$$B_s = 1 + \frac{6.54}{0.7(130 - 6.54)} = 1.08$$

Son valores q1 nos brinda la norma.

$$S_{max} = \frac{125000 \times 1}{1.08 \times 2246.92} = 2 \times 6.54 = 38.43 \text{ cm}$$

$$S_{max} 38.43 \text{ cm} > 3.84 \text{ cm} \quad \checkmark$$