



$$\begin{aligned}\sum M_E &= (F_{By} * 53.7079") - (F_{Bx} * 28.8705") + (F_{CA} * 22.6448") - (F_{DF} * 11.2417") = 0 \\ (933.967\# * 53.7079") - (2660.02\# * 28.8705") + (1861.32\# * 22.6448") - (F_{DF} * 11.2417") &= 0 \\ -15514.5" &- (F_{DF} * 11.2417") = 0\end{aligned}$$

$$\frac{-15514.5"}{11.2417"} = \frac{F_{DF} * 11.2417"}{11.2417"}$$

$$1380.09\# = F_{DF}\#$$

$$\begin{aligned}\sum F_x &= F_{Bx} + F_{CAx} + F_{DFx} - F_{Ex} = 0 \\ -2660.02 + (1861.32\# * \cos 13.4826') + (1380.09\# * \cos 61.3572') + F_{Ex} &= 0 \\ -188.454" &+ (F_{Ex}) = 0 \\ 188.454" &= F_{Ex}\end{aligned}$$

$$\begin{aligned}\sum F_y &= F_{By} - F_{CAy} + F_{DFy} - F_{Ey} = 0 \\ -933.967\# + (1861.32\# * \sin 13.4826') + (1380.09\# * \sin 61.3572') + F_{Ey} &= 0 \\ 711.202\# + F_{Ey} &= 0 \\ 711.202\# &= F_{Ey}\end{aligned}$$