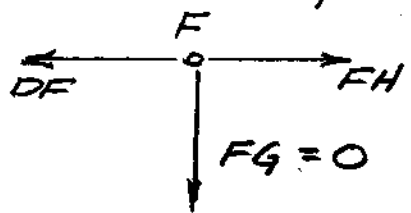


G. Milano

$$\sum M_H = 0 = (12 \text{ KIPS})(32') - R_{Gy}(8') \Rightarrow R_{Gy} = 48 \text{ KIPS} \uparrow$$

$$\sum F_y = 0 = -12 \text{ KIPS} + 48 \text{ KIPS} + R_{Hy} \Rightarrow R_{Hy} = 36 \text{ KIPS} \downarrow$$

NOTICE THE T-INTERSECTION AT F

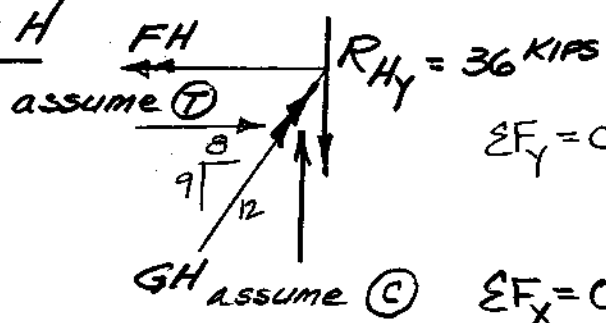


$$\sum F_y = 0 = -FG$$

FG = ZERO LOAD MEMBER

$$DF = FH$$

J.T. H



$$\sum F_y = 0 = \frac{9}{12} GH - 36$$

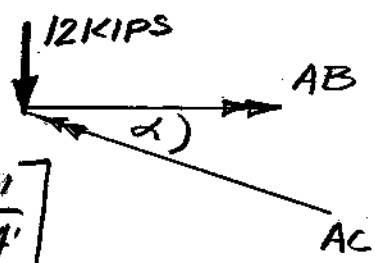
$$GH = 48 \text{ KIPS } \textcircled{C}$$

$$\sum F_x = 0 = -FH + \frac{8}{12}(48)$$

$$FH = 32 \text{ KIPS } \textcircled{T}$$

$$\therefore DF = 32 \text{ KIPS } \textcircled{T}$$

J.T. A



$$\alpha = \tan^{-1} \left[ \frac{9'}{24'} \right]$$

$$\alpha = 20.56^\circ$$

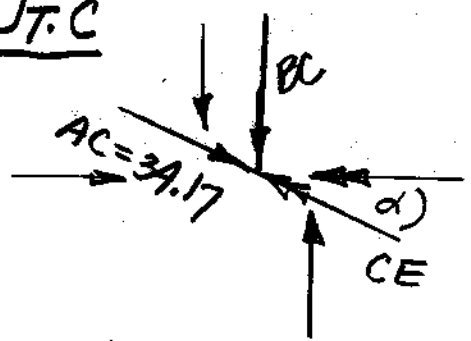
$$\sum F_y = 0 = -12 + AC \sin 20.56^\circ$$

$$AC = 34.17 \text{ KIPS } \textcircled{C}$$

$$\sum F_x = 0 = AB - AC \cos 20.56^\circ$$

$$AB = 32 \text{ KIPS } \textcircled{T}$$

Jt. C



$$\sum F_x = 0 = 34.17 \cos \alpha - CE \cos \alpha$$

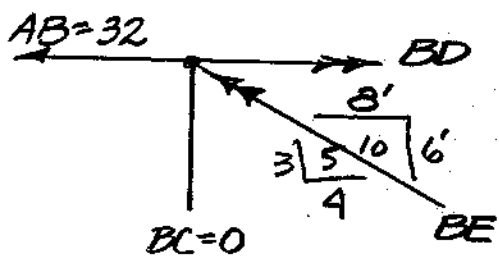
$\cos \alpha$  CANCELS

$$\therefore CE = 34.17 \text{ KIPS } (\odot)$$

$$\therefore CE_y = AC_y$$

$$\therefore BC = 0$$

Jt. B



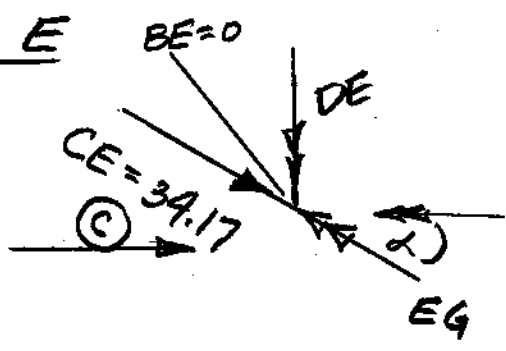
$$\sum F_y = 0 = \frac{3}{5} BE$$

$$\therefore BE = 0$$

$$\sum F_x = -AB + BD$$

$$BD = 32 \text{ KIPS } (\oplus)$$

Jt. E



$$\sum F_x = 0 = 34.17 \cos \alpha - EG \cos \alpha$$

$\cos \alpha$  CANCELS

$$EG = 34.17 \text{ KIPS } (\odot)$$

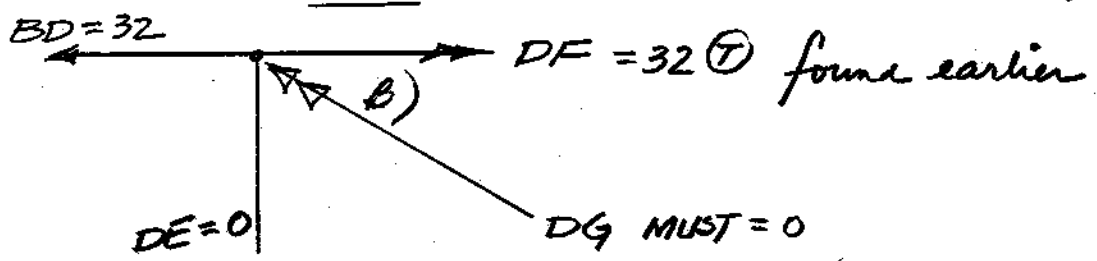
$$\sum F_y = 0 = -DE - 34.17 \sin \alpha + 34.17 \sin \alpha$$

$$DE = 0$$

SEE A PATTERN?

Jt. D

SHOULD BE JUST LIKE Jt. B



DG MUST = 0

$$\sum F_y = 0 = DE + DG \sin \beta = 0$$

$$DG = 0$$

RESULT: ALL INNER MEMBERS ARE ZERO LOAD. CHECK AT Jt. G.