

$$\theta = 25.29^\circ$$

$$\alpha = 22.442^\circ$$

$$\beta = 42.268^\circ$$

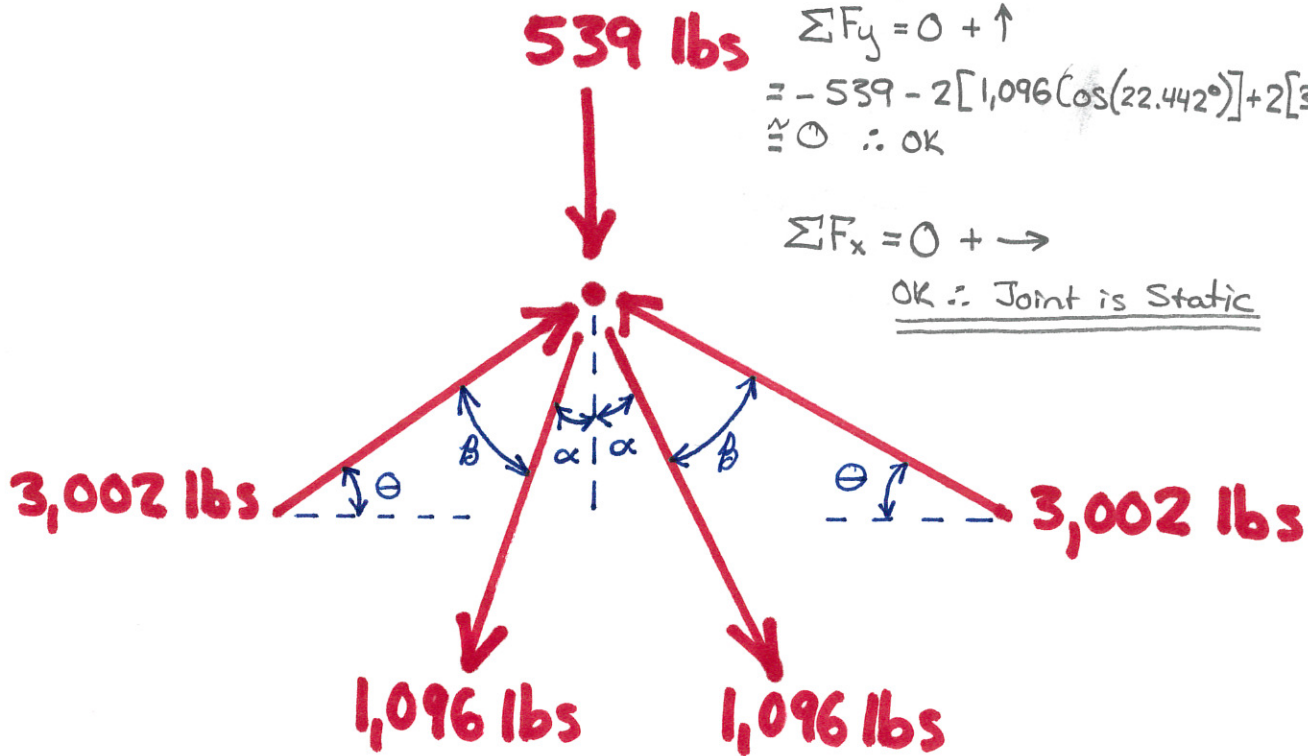
$$\sum F_y = 0 + \uparrow$$

$$= -539 - 2[1,096 \cos(22.442^\circ)] + 2[3,002 \sin(25.29^\circ)]$$

$$\approx 0 \therefore \text{OK}$$

$$\sum F_x = 0 + \rightarrow$$

OK \therefore Joint is Static



Calculate how much axial force is going into the top chord members from the (2) web members.

$$\sum F_y = 0 + \uparrow$$

$$-539 + 2[F \sin(25.29^\circ)] = 0$$

$$F = 631 \text{ lbs}$$

Axial force contributed from web members

$$= 3,002 - 631$$

$$= 2,371 \text{ lbs}$$

in each TC member

