



Assumptions:

- tube : angles are sufficiently rigid to uniformly distribute stresses
- tube, angles have been checked for lateral shear (minor-axis bending)

Fastener 1

Fastener shear: $F/2$

Fastener pull-out: $\frac{Fh}{w+2a}$ (this assumes that the pivot point is about the left fastener)

Fastener 2

Fastener shear: $\frac{Fh}{w}$ (this assumes the pivot point is about the left corner of the tube, or the left fastener 2)

$$\therefore \text{Fastener shear} = \max\left(\frac{F}{2}, \frac{Fh}{w}\right)$$

$$\text{pullout} = \left(\frac{Fh}{w+2a}\right)$$