

⇒ joint can carry

$$\frac{(14)(28)}{(7)(2)} = \frac{402}{392} \text{ approx}$$

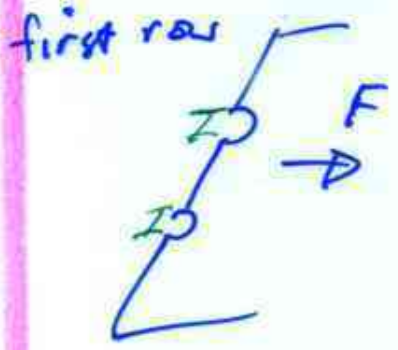
Bearing force

$$F_B = (\sigma_B)(d)(t) = (124 \times 10^6)(0.024)(0.02) = 59.5 \text{ kN}$$

for rivets shear failure → $2 \times 28 = \underline{56}$ kN
 bearing overload → 59.5

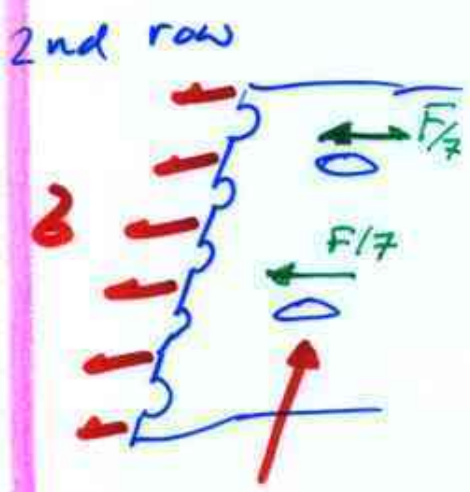
$$(7)(56) = (14)(28) = \underline{\underline{392 \text{ kN}}}$$

Now consider tensile failure



$$F_{max} = (\sigma_{max})(Area) = (95 \times 10^6)(20 \times 10^{-3})(250 - 2 \times 24) \times 10^{-3} = \underline{\underline{384 \text{ kN}}}$$

length of repeated unit



$$(\sigma_{max})(A) = (F - \frac{2F}{7}) = (\frac{5F}{7})$$

$$F = (\frac{7}{5})(95 \times 10^6)(250 - 5(24)) \times 10^{-3} \times (20 \times 10^{-3})$$

thickness

$$\underline{\underline{F_{max} = 346 \text{ kN}}}$$