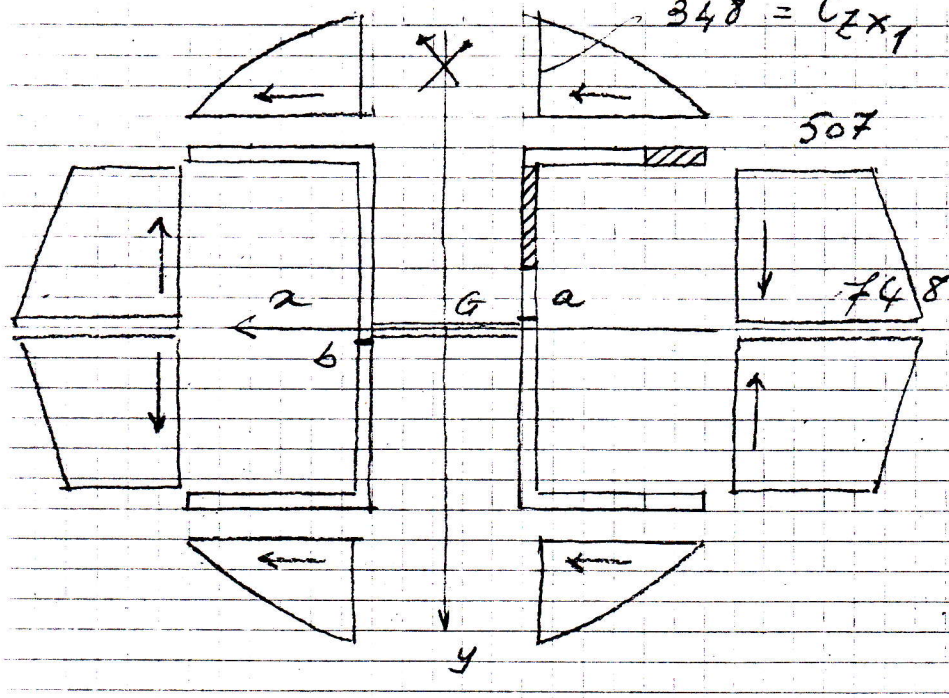
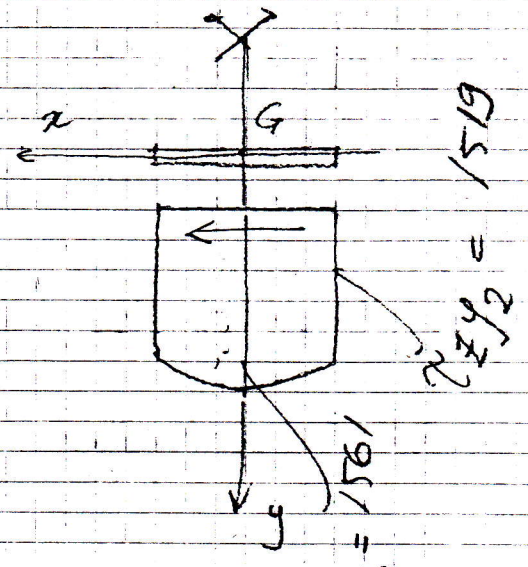
$$\tau_{zy\,max} = \frac{T_y \; S_x}{I_x \; s} =$$

$$= -\frac{20\,000\left(125{,}4175 + \underset{10.225}{(12 - 1{,}3 - 0{,}95/2)}\,0{,}95\,\underset{5{,}5875}{(10{,}225/2 + 0{,}95/2)}\right)}{7198 \cdot 0{,}95}$$

$$= -525 \text{ kg/cm}$$





$$\tau_{zx\,1} = -\frac{T_x \; S_y}{I_y \; t} =$$

$$= -\frac{20\,000\left[(8{,}5 - 0{,}95)\cdot 1{,}3\,\underset{7{,}55}{\left((8{,}5 - 0{,}95)/2 + 4 + 0{,}95\right)}\right]}{3788 \cdot 1{,}3} =$$

$$= -348 \text{ kg/cm}$$

$$\tau_{zy\,min} = -\frac{T_x \; S_y}{I_y \; s} =$$

$$= -\frac{20\,000\left[(8{,}5 \cdot 1{,}3)\,\underset{8{,}25}{(4 + 8{,}5/2)}\right]}{3788 \cdot 0{,}95} = -507 \text{ kg/cm}$$

$$\tau_{zy\,max} = -\frac{20\,000\left(97{,}1625 + \underset{4.475}{10{,}225 \cdot 0{,}95 \cdot (4 + 0{,}95/2)}\right)}{3788 \cdot 0{,}95} =$$