$$\tau_{zx}^{①} = -\frac{100\,(5-0{,}6)\cdot 0{,}3\cdot(5{,}163-0{,}15)}{111{,}25\cdot 0{,}3\cdot 2} = -9{,}91\ \text{kg/cm}^2$$

$$\tau_{zy\,max} - \tau_{zy}^{②} = -\frac{100\left(6{,}617+\frac{5{,}163^2}{2}\cdot 0{,}3\cdot 8\right)}{111{,}25\cdot 0{,}3\cdot 2} =$$

$$= -21{,}89\ \text{kg/cm}^2$$

$$\tau_{zx}^{③} = \frac{100\,(3-0{,}3)\cdot 0{,}3\cdot(4{,}837-0{,}15)}{111{,}25\cdot 0{,}3} = 11{,}37\ \text{kg/cm}^2$$

$$\tau_{zx}^{②} \simeq \tau_{zy}^{④} \qquad \tau_{zx}^{①} \simeq \tau_{zy}^{⑤}$$

$$\sigma_{id_A} = \sqrt{3\,(21{,}89+262{,}86)^2} = 493{,}2\ \text{kg/cm}^2 < \sigma_{am}$$