Relation enveloppe (suffisante) (en se plaçant en accroché).

$$\sigma^2 + 1.8(\tau_\perp^2 + \tau_{//}^2) \leq \bar{\sigma}_{en}^2$$

on a $\sigma^2 + 1.8(\tau_\perp^2 + \tau_{//}^2) \leq 1.8\left[\sigma^2 + \tau_\perp^2 + \tau_{//}^2\right] \leq \bar{\sigma}_{en}^2$

et on $\left[\sigma^2 + \tau_\perp^2 + \tau_{//}^2\right] = C^2$ donc.

$1.8\, C^2 \leq \bar{\sigma}_{en}^2 \rightarrow \sqrt{1.8}\, C \leq \bar{\sigma}_{en}$.

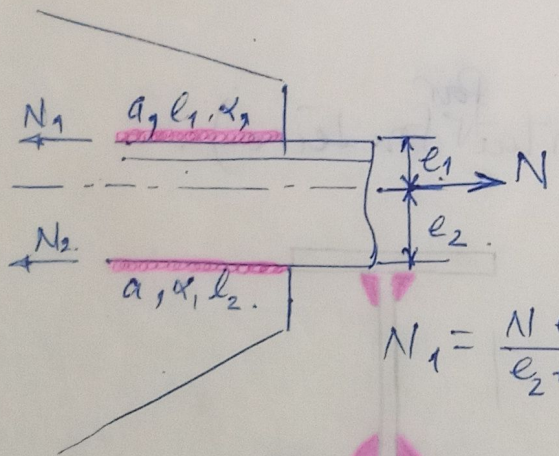
alors $\dfrac{C}{\frac{1}{\sqrt{1.8}}} \leq \bar{\sigma}_{en} \rightarrow \dfrac{C}{0,75} \leq \bar{\sigma}_{en}$.

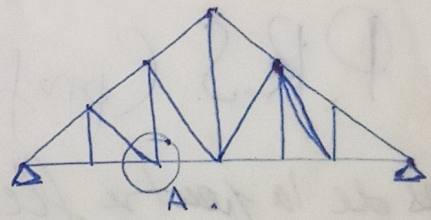
et $C = \dfrac{F}{\ell a \alpha}$ alors $\dfrac{F}{0,75\,\ell a \alpha} \leq \bar{\sigma}_{en}$

donc la formule enveloppe pour tous les cordons

$$\left\{ \frac{F}{0,75\,\ell a \alpha} \leq \bar{\sigma}_{en} \right\}$$

Soudure de Cornière sur Gousset :





$$N_1 = \frac{N e_2}{e_2 + e_1}, \quad N_2 = \frac{N e_1}{e_1 + e_2}.$$

donc $\dfrac{N_1}{0,75\,\ell_1 a \alpha} \leq \bar{\sigma}_{en} \rightarrow \ell_1 \geq \dfrac{N_1}{0,75\,\bar{\sigma}_{en}\, a \alpha}$.

$\dfrac{N_2}{0,75\,\ell_2 a \alpha} \leq \bar{\sigma}_{en} \rightarrow \ell_2 \geq \dfrac{N_2}{0,75\,\bar{\sigma}_{en}\, a \alpha}$.