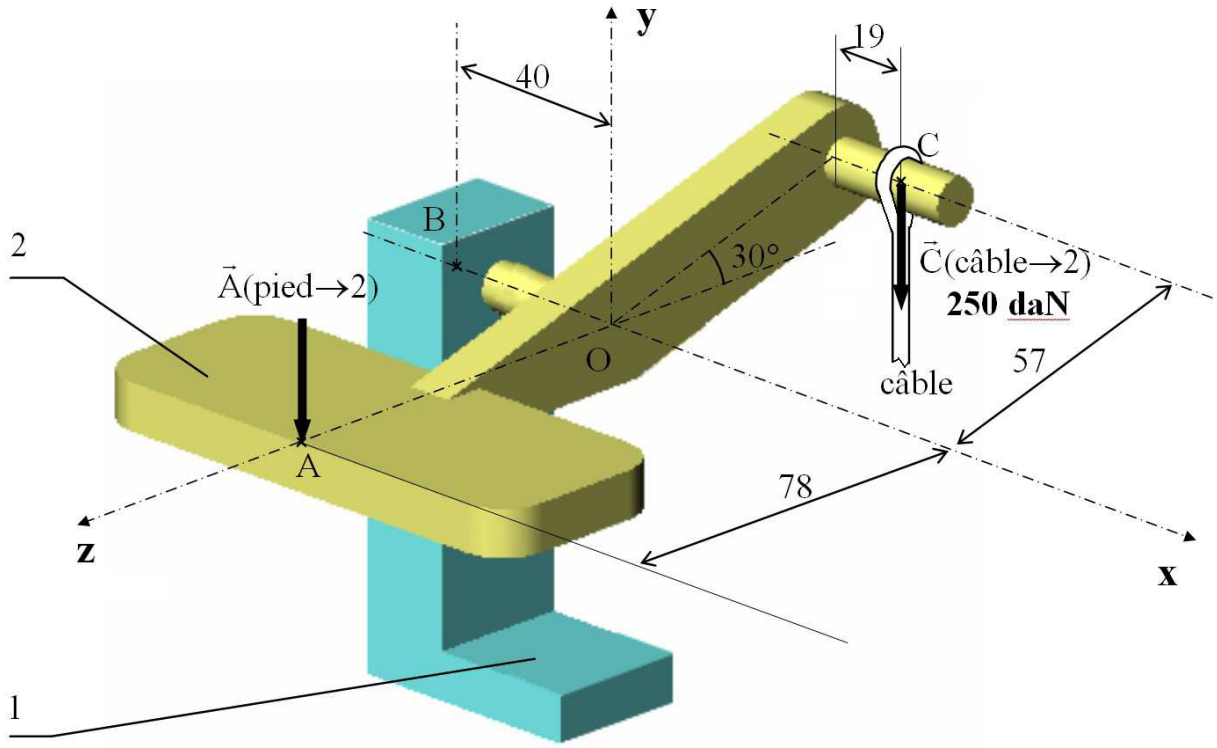


$$ {}_{A}\{\tau_{p\to 2}\} = {}_{A}\begin{Bmatrix} 0 & 0 \\ Y_{p2} & 0 \\ 0 & 0 \end{Bmatrix} \Rightarrow {}_{B}\{\tau_{p\to 2}\} = {}_{B}\begin{Bmatrix} 0 & \|Y_{p2}\|.78 \\ Y_{p2} & 0 \\ 0 & -\|Y_{p2}\|.40 \end{Bmatrix} $$

$$ {}_{B}\{\tau_{1\to 2}\} = {}_{B}\begin{Bmatrix} X_{12} & 0 \\ Y_{12} & M_{12} \\ Z_{12} & N_{12} \end{Bmatrix} \Rightarrow {}_{B}\{\tau_{1\to 2}\} = {}_{B}\begin{Bmatrix} X_{12} & 0 \\ Y_{12} & M_{12} \\ Z_{12} & N_{12} \end{Bmatrix} $$

$$ {}_{C}\{\tau_{c\to 2}\} = {}_{C}\begin{Bmatrix} 0 & 0 \\ Y_{c2} & 0 \\ 0 & 0 \end{Bmatrix} \Rightarrow {}_{B}\{\tau_{c\to 2}\} = {}_{B}\begin{Bmatrix} 0 & -\|Y_{c2}\|.57.\cos 30° \\ Y_{c2} & 0 \\ 0 & -\|Y_{c2}\|.(40+19) \end{Bmatrix} $$

$$ {}_{B}\{\tau_{p\to 2}\} + {}_{B}\{\tau_{1\to 2}\} + {}_{B}\{\tau_{c\to 2}\} = 0 $$

(1) $X_{12}=0$

(2) $Y_{p2}+Y_{12}+Y_{c2}=0$ $Y_{p2}+Y_{12}-250=0$

$Y_{p2}+Y_{12}=250$

(3) $Z_{12}=0$

(4) $\|Y_{p2}\|.78-\|Y_{c2}\|.57.\cos 30°=0$

$\|Y_{p2}\|.78-250.57.0{,}866=0$

$\|Y_{p2}\|.78-12341=0$

$\|Y_{p2}\|=\frac{12341}{78}$ $\|Y_{p2}\|=158daN$ $Y_{p2}=-158daN$

(5) $M_{12}=0$

(6) $-\|Y_{p2}\|.40+N_{12}-\|Y_{c2}\|.59=0$

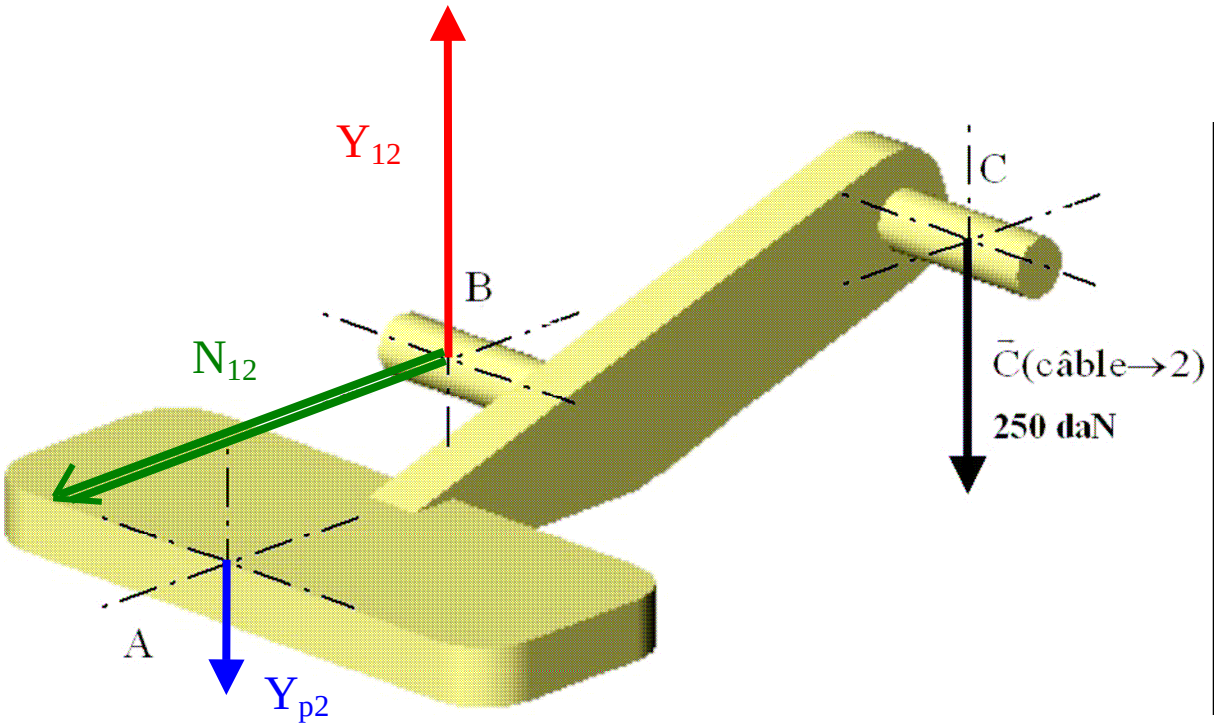
$-158.40+N_{12}-250.59=0$

$-6320+N_{12}-14750=0$

$N_{12}=21070daN.cm$ $N_{12}=211daN.m$

(2)+(4) $-158+Y_{12}=250$ $Y_{12}=408daN$

Vecteurs résultantes : 1 cm = 100 daN
Vecteurs moments : 1 cm = 50 daN.m



$$ {}_A\{\tau_{p\to 2}\} = {}_A\begin{Bmatrix} 0 & 0 \\ -158 & 0 \\ 0 & 0 \end{Bmatrix} $$

$$ {}_B\{\tau_{1\to 2}\} = {}_B\begin{Bmatrix} 0 & 0 \\ 408 & 0 \\ 0 & 211 \end{Bmatrix} $$

$$ {}_C\{\tau_{c\to 2}\} = {}_C\begin{Bmatrix} 0 & 0 \\ -250 & 0 \\ 0 & 0 \end{Bmatrix} $$