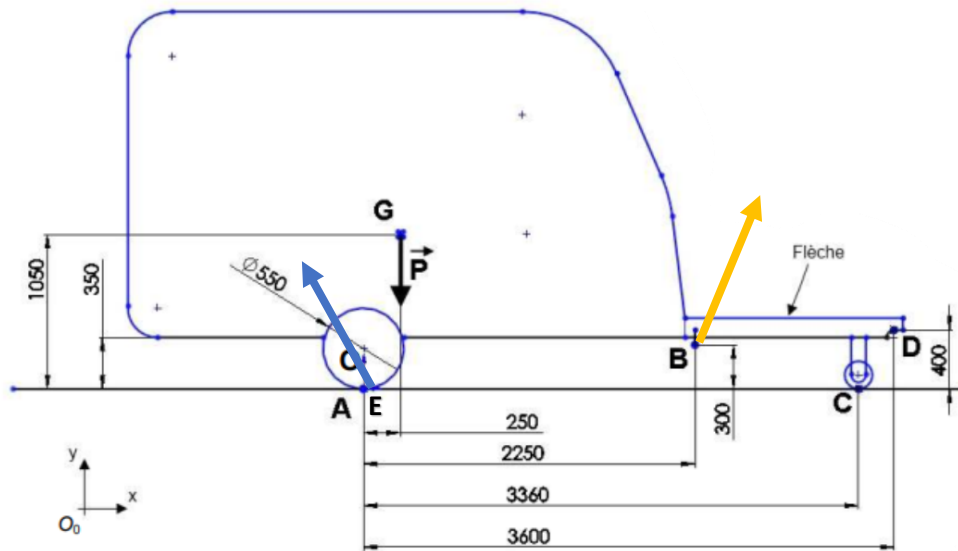**CORRECTION REVISIONS PFS**

Dimensions de la caravane (en mm)

Le théorème du moment résultant statique en A permet d'écrire :

$$\overrightarrow{M_E(\overrightarrow{E_{0/1}})} + \overrightarrow{M_E(\overrightarrow{B_{2/1}})} + \overrightarrow{M_E(\overrightarrow{P_{G/1}})} = \vec{0}$$

$$\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ 0 \\ 2,24\,B_y - 0,35\,B_x \end{pmatrix} + \begin{pmatrix} 0 \\ 0 \\ -0,24 \cdot 15000 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$

$2,24\,B_y - 0,35\,B_x = 3600$ (1)

Le théorème de la résultante statique permet d'écrire :

$$\overrightarrow{E_{0/1}} + \overrightarrow{B_{2/1}} + \overrightarrow{P_{G/1}} = \vec{0}$$

$$\begin{pmatrix} -E\sin\alpha \\ E\cos\alpha \\ 0 \end{pmatrix} + \begin{pmatrix} B_x \\ B_y \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ -15000 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$

$2,24\,B_y - 0,35\,B_x = 3600$ (1)
$-E\sin\alpha + B_x = 0$ (2)
$E\cos\alpha + B_y - 15000 = 0$ (3)

$\dfrac{B_x}{\sin\alpha}\cos\alpha + B_y = 15000$
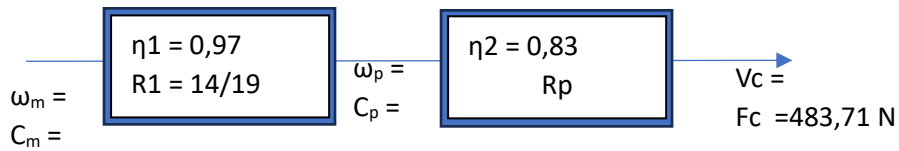
$\dfrac{B_x}{\tan(2,08°)} + B_y = 15000$

$61,68 \cdot B_x + 2,24\,B_y = 33\,600$

$-0,35\,B_x + 2,24\,B_y = 3600$

$62,02\,B_x = 30000$ soit $B_x = 483,71\,N$, $B_y = 1\,682,72\,N$, $f = 0,287$

CORRECTION REVISIONS PFS

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                    ┌──────────────────┐              ┌──────────────────┐
                    │   η1 = 0,97      │   ω_p =      │   η2 = 0,83      │   Vc =
  ω_m = ───────────▶│   R1 = 14/19     │              │      Rp          │──────▶
  C_m =             │                  │   C_p =      │                  │   Fc =483,71 N
                    └──────────────────┘              └──────────────────┘
```

$$\eta_2 C_P \omega_P = F_c v_c$$
$$\eta_2 C_P \omega_P = F_c \omega_P R_P$$
$$\eta_2 C_P = F_c R_P$$
$$C_P = \frac{F_c R_P}{\eta_2} = \frac{483{,}71 \cdot \left(^{26\,\cdot\,12{,}7\cdot 10^{-3}}/_{2\pi}\right)}{0{,}83} = 30{,}62 \text{ N.m}$$

$$\eta_1 C_m \omega_m = C_P \omega_P, \quad C_m = \frac{C_P}{\eta_1}\frac{\omega_P}{\omega_m} = \frac{C_P}{\eta_1} \cdot R_1 = \frac{30{,}62}{0{,}97} \cdot \frac{14}{19} = 23{,}26 \; N.m$$