$G_u := 55000\ \boldsymbol{kgf}$

$G_i := 227\ \boldsymbol{kgf}$

$G_g := 180\ \boldsymbol{kgf}$

$l := 257\ \boldsymbol{mm}$

$l_p := (84\ \boldsymbol{mm} - 13\ \boldsymbol{mm}) \cdot 3 = 213\ \boldsymbol{mm}$

$q := \frac{G_u + G_i + G_g}{l_p} = 260.127\ \frac{\boldsymbol{kgf}}{\boldsymbol{mm}}$

$q_S := \frac{G_u + G_i + G_g}{l} = 215.591\ \frac{\boldsymbol{kgf}}{\boldsymbol{mm}}$

$\frac{q - q_S}{q} \cdot 100 = 17.121$

$a := 70\ \boldsymbol{mm}$

$q_p := \frac{q \cdot l}{2\ a} = 477.518\ \frac{\boldsymbol{kgf}}{\boldsymbol{mm}}$

$f := 43.25\ \boldsymbol{mm}$

$T_{AA} := q_p \cdot a - q \cdot f = \left(2.218 \cdot 10^4\right)\ \boldsymbol{kgf}$