E =   200000   MPa
G =   80000   MPa
Iy =   1655405 mm4
J =   101179.5 mm4
Iw =   1.04E+10 mm6
le =   2000 mm
Mo =   103.9356 kNm

The reference buckling moment (M_o) shall be determined as follows:

$$M_o = \sqrt{\left[\left(\frac{\pi^2 EI_y}{l_e^2}\right)\left[GJ + \left(\frac{\pi^2 EI_w}{l_e^2}\right)\right]\right]}$$ 5.6.1.1(3)

where

E, G =   elastic moduli (see Clause 1.4)

$I_y, J,$ and I_w =   section constants (see Clause 1.4)

l_e =   effective length determined in accordance with Clause 5.6.3