

### 3.152 Information and assumptions

Provided in problem statement

#### Find

Stability

#### Solution

$$\begin{aligned}GM &= I_{00}/\nabla - CG \\ &= \left(3H(2H)^3 / (12 \times H \times 2H \times 3H)\right) - H/2 \\ &= -H/6\end{aligned}$$

Not stable about longitudinal axis

$$\begin{aligned}GM &= I_{00}/\nabla - CG \\ &= \left(2H(3H)^3 / (12 \times H \times 2H \times 3H)\right) - H/2 \\ &= H/4\end{aligned}$$

Stable about transverse axis

Not stable.