

$$M_{\max} = 3023 \times 1.30 - \left(\frac{1.30}{2}\right)^2 \times 1170 - 0.375 \times 1500 = \underline{\underline{2380 \text{ kgfm.}}}$$

$$h = 37^5 - 2 \cdot 1 \cdot 0^4 = 33.8 \text{ cm.}$$

$$h = 33.8 = 0.379 \sqrt{\frac{2380}{0.30}}$$

$$A = 0.0815 \frac{2380}{33.8} = 5.75 \text{ cm}^2$$

$$\underline{\underline{\text{neem } \angle \phi 14 \text{ (6.16 cm}^2\text{)}}}$$

$$m_i = \frac{2380}{3} = 794 \text{ kgm.}$$

$$h = 37^5 - 2 \cdot 1 \cdot 0^4 = 31.8$$

$$h = 31.8 = 0.612 \sqrt{\frac{794}{0.30}}$$

$$A = 0.0772 \times \frac{794}{31.8} = 1.93 \text{ cm}^2$$

$$A_{\min} = 0.25\% \times 30 \times 37^5 = 2.81 \text{ cm}^2$$

$$\underline{\underline{\text{neem } \angle \phi 10 \text{ (3.14 cm}^2\text{)}}}$$

$$T_m = 3477 \text{ kgf}$$

$$G_b = \frac{1.5 \times 3477}{30 \times 37^5} = 4.64 \text{ kgf/cm}^2 < 6 \text{ kgf/cm}^2$$