



IF EACH BAR IS THE SAME THEN THE SHEAR LOAD WILL BE EQUALLY SHARED

$$\text{i.e. } \frac{W \times 9.81}{12 \text{ BARS}} = \text{SHEAR LOAD per BAR.}$$

let μ = LOAD ON BAR DUE TO APPLIED MOMENT AT A UNIT DISTANCE FROM 'O'

$$\therefore W \times x \times 9.81 = 2\mu(d^2) + 2\mu(2d)^2$$

$$\therefore \frac{W \times x \times 9.81}{2(d^2 + (2d)^2)} = \mu$$

SO THE MAX LOAD ON BAR WILL BE THOSE AT A DISTANCE OF $2d$ FROM PIVOT.

MULTIPLY $\mu \times 2d$ = MAX LOAD ON BAR.