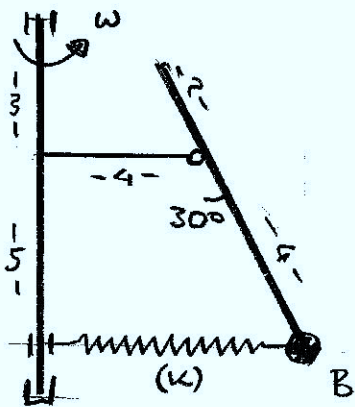


Вар. 3 - МОДУЛ 2

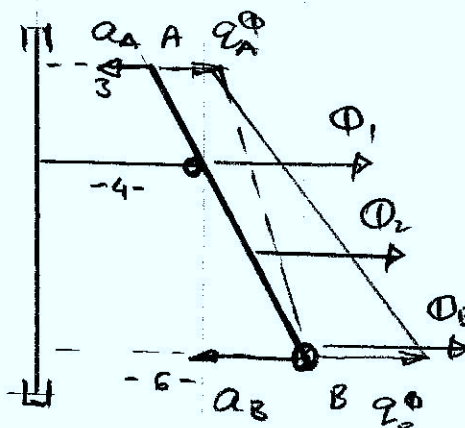


$$M_{AB} = 60 \text{ кг} \quad w_B = 20 \text{ кН}$$

$$\Downarrow$$

$$M_{AB}' = \frac{60}{6} = 10 \text{ кг/м}^2$$

$$w = 2 \text{ с}^{-1}$$



1. Кинемат. решение

$$a_A = w^2 \cdot 3 = 2^2 \cdot 3 = 12 \frac{\text{м}}{\text{с}^2} (\leftarrow)$$

$$a_B = w^2 \cdot 6 = 2^2 \cdot 6 = 24 \frac{\text{м}}{\text{с}^2} (\leftarrow)$$

2. Инерционные силы

$$\Phi_B = w_B \cdot a_B = 20 \cdot 24 = 480 \text{ Н} (\rightarrow)$$

$$q_{VA}^{\phi} = M_{AB}' a_A = 10 \cdot 12 = 120 \text{ Н/м}$$

$$q_{VB}^{\phi} = M_{AB}' a_B = 10 \cdot 24 = 240 \text{ Н/м}$$

$$\Phi_1 = \frac{1}{2} q_{VA}^{\phi} AB = \frac{1}{2} \cdot 120 \cdot 6 = 360 \text{ Н}$$

$$\Phi_2 = \frac{1}{2} q_{VB}^{\phi} AB = \frac{1}{2} \cdot 240 \cdot 6 = 720 \text{ Н}$$

3. Определяете на търселилите функции

реакции

$$\Delta_{пр.} = 6 - 4 = 2 \text{ м}$$

$$F_{пр} = k \cdot 2$$

Прът AB:

$$\sum M_O = 0 \quad - k \cdot 2 \cdot 3,464 - 600 \cdot 0,5 - 200 \cdot 2 + 720 \cdot 1,732 + 480 \cdot 3,464 = 0$$

$$k = 319 \text{ Н/м} \rightarrow$$

$$F_{пр.} = 638 \text{ Н}$$

$$\sum H = 0 \quad O_H + 720 + 480 + 360 - 638 = 0$$

$$O_H = -922 \text{ Н}$$

$$\sum V = 0 \quad O_V - 600 - 200 = 0$$

$$O_V = 800 \text{ Н}$$

Рамка DCO

$$\sum V = 0 \quad D_V = 800$$

$$\sum M_C = 0 \quad - D_H \cdot 8 + 638 \cdot 6,464 + 922 \cdot 3 - 800 \cdot 4 = 0$$

$$\rightarrow D_H$$

$$\sum M_D = 0 \quad C_H \cdot 8 - 638 \cdot 1,536 - 800 \cdot 4 - 922 \cdot 5 = 0$$

$$\rightarrow C_H$$

