

CE8A1

$$L = \frac{10^6}{60 \cdot \pi} \left( \frac{C}{F} \right)^{14}$$

58000

6007

$$F = F_r$$

$$\pi = 980 \text{ s}^{-1}$$

$$L = \frac{10^6}{60 \cdot 980} \cdot \left( \frac{15,3}{2,1} \right)^3$$

$$F_r = 2,1 \text{ kN}$$

$$L = 7381,7 \text{ s}$$

ENERGETIKA

$$m = 8 \text{ kg}$$

$$p = 1 \text{ bar}$$

$$T_1 = 200 \text{ }^\circ\text{C}$$

$$p_2 = 12 \text{ bar}$$

izračun

$$p_1 V_1 = nRT_1$$

$$V_1 = \frac{nRT_1}{p_1} = \frac{8 \cdot 287 \cdot 473}{10^5}$$

$$V_1 = 10,86 \text{ m}^3$$

$$p_1 V_1^\gamma = p_2 V_2^\gamma$$

$$V_2 = \left( \frac{p_1}{p_2} \right)^{\frac{1}{\gamma}} \cdot V_1$$

$$V_2 = \left( \frac{1}{12} \right)^{\frac{1}{1,4}} \cdot 10,86$$

$$V_2 = 1,841 \text{ m}^3$$

$$T_2 = \frac{p_2 V_2}{nR} = \frac{12 \cdot 10^5 \cdot 1,841}{8 \cdot 287}$$

$$T_2 = 962,2 \text{ K}$$

ENTROPIJA JE KONSTANTNA

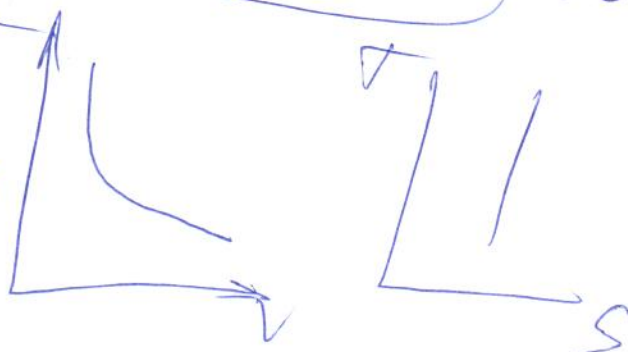
$$W = p \Delta V$$

$$W = \frac{nR}{\gamma - 1} (T_1 - T_2)$$

$$W = \frac{8 \cdot 287}{0,4} (473 - 962,2)$$

$$W = -2808008 \text{ J}$$

$$\bar{W}_T = \bar{R} \cdot W = 3931211,2 \text{ J}$$



## FRE ZANSE

$M_{\alpha}$ : P20

$$d = 300 \text{ mm}$$

$$M_{03}: R_n = 650 \text{ MPa}$$

$$z = 12$$

$$N = 130 \text{ m/min}$$

$$n = \frac{1000 \cdot v}{\pi d} = \frac{1000 \cdot 130}{\pi \cdot 300}$$

$$n = 942,5 \text{ min}^{-1}$$

$$f_z = 0,09 \text{ mm/prob}$$

$$f = z f_z n = 12 \cdot 0,09 \cdot 942,5$$

$$f = 1018 \text{ mm/min}$$

## STRU ZANSE

$$R_n = 900 \text{ MPa}$$

$$d = 80 \text{ mm}$$

$$v = 240 \text{ m}$$

$M$ : P10

$$f = 0,1 \text{ mm/prob}$$

$$N = 85 \text{ m/min}$$

$$n = \frac{1000 \cdot v}{\pi d} = \frac{1000 \cdot 85}{\pi \cdot 80}$$

$$n = 390 \text{ min}^{-1}$$

1. BRINER

$$d = \frac{d_1 + d_2}{2} = \frac{1,197 + 1,203}{2} = 1,2 \text{ mm}$$

$$D = 2,5 \text{ mm}$$

$$F = 1875 \text{ N}$$

$$X = \frac{0,102 F}{D^2} = \frac{0,102 \cdot 1875}{6,25}$$

$$X = 30$$

12 TABEL ODENIATRO HB ≈ 156 MPa

$$R_{MC} = 560 \text{ MPa}$$

$$R_{Mcr} = 550 \text{ MPa}$$

$$R_{Merni} = 530 \text{ MPa}$$

SVOBLANJE

$$M_{OK} = K20$$

$$M_{OB} = SL \ 200 \text{ HB}$$

$$a = 8 \text{ mm}$$

$$f = 0,5 \text{ mm}$$

$$\beta = 95^\circ$$

$$\mu = 3 \text{ A}$$

$$\beta_f = 10 \rightarrow 15^\circ$$

$$\beta_f = -5 \rightarrow -10^\circ$$

$$N_{c240} = 55 \text{ m/min}$$

$$R_{c111} = 160 \text{ MPa}$$

$$\mu = 0,26$$

$$\frac{N_{c60}}{N_{c240}} = \frac{1,26}{1}$$

$$\Rightarrow N_{c60} = 1,26 \cdot N_{c240}$$

$$N_{c60} = 1,26 \cdot 55$$

$$N_{c60} = 69,3 \frac{\text{m}}{\text{min}}$$

$$A = a f = 8 \cdot 0,5 = 4 \text{ mm}^2$$