

4 (297× 210)

1. $(\dots, .1),$
2. (\dots)
3. $(\dots .2).$
4. $(\dots .5)$
5. $(\dots .6).$

$m(),$ $h(),$
 $v(\dots^{-1}),$ $z,$
 $1. \dots^1(.1).$
 $4 \dots -$
 $3 \dots 1.$
 2

 $1 \dots .1 \dots .1.$

2. , , ,

$$3. U_n = \frac{Z}{a_n}$$

a_n - , ;

$$a_n = 2.$$

2

$$\eta_n = \frac{1 + \eta + \eta^2 + \eta^3}{U_n},$$

η - ; $\eta =$ [1, .2.1.].

:

$$F = \frac{m \cdot g}{z \cdot \eta_n}$$

$$F_p' \geq k \cdot F ,$$

k - ; 3

$k = [1, . 2.3]$. [1, .]

:

$$d_k = ,$$

2 $U_n = 4.$

3 , $F_p' \leq F_p$

$$F_p =$$

: [1, .56].

()

$$D \geq d_k(e-1) ,$$

e -

;

$$e = [1, .2.7]$$

(. .1)

$$D =$$

$$1 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}}^4 \quad ()$$

$$D = [] .$$

$$m = ,$$

(. .2)

N

:

$$D = , b = , h = , d_2 = , r_4 =$$

, .

$$H = \frac{4 \cdot 10^3 \cdot m \cdot g \cdot p}{\pi(d^2 - d_1^2)[\sigma]}$$

$$d, d_1 \text{ p-} ; [\sigma] \text{-}^5 ;$$

$$d = , d_1 = , p =$$

$$[2, .14], [\sigma] = [] ;$$

$$^6 \quad H =$$

$$H = [3]$$

$$D = 1.8 \cdot d$$

⁴ 260, 335, 400 510 , $D_u \geq (0.9...1.0)D$

⁵ $[\dagger] = 30...35$

⁶ $H_r = 1.2 \cdot d$

$$D = \quad [3]$$

$$F_a = K \cdot m \cdot g \quad ,$$

$$K - \quad , \quad ^7 K =$$

⁸ [2, .15]

$$6874-75: d = \quad , D = \quad , H = \quad , C_0 = \quad .$$

3. ⁹

2, 1,

4 3 (.2)

3.1. ¹⁰:

$$b = D + (10...20)$$

D-

$$b = \quad [3]$$

¹¹

$$d' = d_2 + (2...5)$$

$$d' =$$

¹²

$$l_0$$

$$l_0 =$$

$$l = l_0 + \delta_0 \quad ,$$

$$u_0 -$$

;

$$u_0 = \quad [\quad . \quad .3]$$

$$^7 \quad = 1.2, \quad = 1.3$$

$$^8 \quad d = d_2 (\quad), C_0 \geq F_a$$

$$^9 \quad .2 \quad (\quad .2),$$

¹⁰ . ⁶⁶³⁶⁻⁶⁹ [3]

¹¹ $d_2 -$

$$^12 \quad (\quad .2): \quad l_0 = b,$$

$$\Delta = 3...5,$$

$$\Delta_1 = 5...7 \quad .$$

$$l =$$

$$l' = 0.5(l + u_0) + \Delta$$

$$l' =$$

$$l_1 = 0.5(l + u_0) + \Delta_1$$

$$l_2 = l + \Delta$$

$$l_1 = , l_2 =$$

3.2.

:

$$\sigma = , \sigma = , \sigma_{-1} = \quad (.4)$$

:

$$[\sigma_u] = \frac{1.4 \cdot \sigma_{-1}}{K \cdot n} ,$$

– ; n-

$$^{13} = [2, .15], n = \quad (.5)$$

$$\sum Y = 0 \quad R_A = R_B = 0.5F_a$$

$$M_1 = R_A \cdot 0.5l$$

$$M_2 = R_A \cdot 0.5(l - l_0)$$

$$h = \sqrt{\frac{6 \cdot M_1}{(b - d') [\tau_u]}}$$

$$h = \quad [3]$$

$$d = \sqrt[3]{\frac{M_2}{0.1[\sigma_u]}}$$

$$d = \frac{R_A}{\delta_0[\sigma]}$$

$$[\sigma] = \dots; \quad {}^{14} [\sigma] = \dots$$

$${}^{15} d = \dots$$

3.3.

$${}^{16} \dots;$$

$$\sigma_B = \dots, \sigma_T = \dots, \sigma_{-1} = \dots \quad (\dots .4).$$

$$R_A = R_B = \dots$$

17

$${}^{18} d_0 = \sqrt[3]{\frac{M}{0.1[\sigma_u]}}$$

$$d_0 =$$

3.4.

$$F_r = \frac{F_a}{2 \cdot n'}$$

$$n' = \dots; \quad n' = \dots$$

$$F_E = \sqrt[3]{F_1^3 \cdot \Delta_1' + F_2^3 \cdot \Delta_2' + F_3^3 \cdot \Delta_3'}$$

¹⁴ [t] = 60...65

¹⁵ [3]. II - «5».

¹⁶

[t_u]

¹⁷

¹⁸

F_1, F_2, F_3 , L_1, L_2, L_3

L_h ,

$$\Delta_1' = L_1/L, \Delta_2' = L_2/L, \Delta_3' = L_3/L$$

:

$$F_1 = k_1 \cdot F_r, F_2 = k_2 \cdot F_r, F_3 = k_3 \cdot F_r, \quad 1=, \quad 2=, \quad 3=,$$

(. .5).

$$F = X \cdot V \cdot F_E \cdot K \cdot K_T,$$

X -

, V -

, K_T -

;

$$X = 1,$$

$$V = 1.2,$$

$$t \leq 105^\circ C \quad K_T = 1 [4]$$

19

$$n = \frac{60 \cdot v \cdot U_n}{\pi \cdot (D + d_k)}, \quad -1$$

20

$$C' = F \cdot \sqrt[3]{\frac{60 \cdot n \cdot L_h}{10^6}},$$

L_h - 21

; $L_h = [1, .19]$.

22

:

$$d = , D = , B = , = [2].$$

19

20 $n = 1 \dots 10^{-1}$, 10^{-1} .

21

22 $d = d_0, C \geq C'$. $d=d$ II .

$$\begin{aligned}
 \% P &= \dots, & n &= \dots^{-1}, \\
 J_p &= \dots^2, & T &= \dots, \\
 b_{31} &= \dots, & d &= [\dots].
 \end{aligned}$$

: [1, .38].

4.2.

$$n = \frac{60 \cdot v \cdot U}{\pi \cdot (D + d_k)},^{-1}$$

$$i = n / n$$

$$a_\Sigma = b_{31} + R,$$

R -

$$D_\delta = R =$$

[1, .2.1].

$$a_\Sigma =$$

$$U =$$

$$n_p = P_p =$$

$$d_1 = [],$$

$$l_3 = , l_9 = , b = ,$$

$$m = , Z = [2, .6].$$

26

27 MTF [1, . . , 3.5] [2, .2]. $P < P'$ (= 15, 25, 40%)

28 $D - .2.5.$

29 2 [1, . . 4.2], [2, .4] $U \geq (0.9...1.0)i,$

$P_p \geq P, n - n$

: [1, .41].

$$T = k \cdot T_p = k \cdot 9550 \cdot P_p / n_p$$

– ; =
[1, .41].

$$T_{n.c} = 0.5(T + 1.1 \cdot T_H) ,$$

$$T_H = 9550 \cdot P / n ,$$

30

$$v = \frac{\pi \cdot n (D + d_k)}{60 \cdot U_n \cdot U} , \quad -1$$

31

$$\Delta v = \frac{v - v}{v} \cdot 100\%$$

4.3.

$$T_C = \frac{m \cdot g \cdot (D + d_k)}{2 \cdot U_n \cdot U} \cdot \eta_M$$

$$T_T = K_T \cdot T_C ,$$

$$K_T = ; \quad K_T =$$

[1, .2.9].

30 $T \geq T_{n.c}$,

« » « » .

31 $\Delta v = \pm 10\%$.

· [1].

4.4.

$$T_M = K_1 \cdot K_2 \cdot T_H ,$$

K_1, K_2 - ,

, T_H -

; [1, .1.35]

$$K_1 = 1.3,$$

$$K_2 = .$$

³³

(. .6.):

$$[] = . ,$$

$$D = ,$$

$$d_1 = ,$$

$$d =$$

$$, J_{M1} = .^2 .$$

:

[1, .41...43].

³⁴

$$N = (. .7)$$

$$: [T] = . ,$$

$$d = ,$$

$$d_1 = , J_{M2} = .^2 .$$

:

[1, .41...43].

4.5.

4.5.1.

³² [1, . .5.13] [1, . .5.11]. $T_T \geq T_T'$.

³³ $[T] \geq T_M, d d$

, d_1 .

³⁴ $[T] \geq T_M, d_1$.

$$J_1 = \delta \cdot (J_P + J_{M1} + J_{M2}) + \frac{m_1 \cdot v^2}{\omega \cdot \eta_1}, \quad (2)$$

u - ; 39 u = .

40

$$t_{11} = J_1 \cdot \check{S} / (T_{11} - T_{11})$$

$$t_{OM1} = J_1 \cdot \omega / (T_{PC} + T_{OM1})$$

			$m_1 =$	$m_2 =$	$m_3 =$
	y	-			
	T	.			
	J	. ²			
	t				
	T	.			
	t				

$$T_E = \sqrt{\frac{T^2 \cdot \sum t + t_y \cdot \sum T^2}{\beta \cdot \sum t + \sum t_y}}$$

$\sum t$ - , t_y -
 β - ,

39 u = 1.05...1.25

40 m_2, m_3, t, t .

$$, \sum t_y -$$

;

$$\beta = [1, .36],$$

$$t_y = 0.5 \cdot H/v \quad (\quad - \quad),$$

(. . .6)

$$\sum t_y = 8 \cdot t_y,$$

$$\sum t = 2(t_{11} + t_{11}) + t_{22} + t_{22} + t_{33} + t_{33},$$

$$\sum T^2 = 2(T_{11}^2 + T_{11}^2) + T_{22}^2 + T_{22}^2 + T_{33}^2 + T_{33}^2$$

⁴¹,

$$P_E = T_E \cdot n / 9550,$$

⁴²

, . -2

$$a_n = v / t, \quad . -2$$

⁴³

$$t_T = J_1 \cdot \check{S} / (T_T' - T_C),$$

[1, .1.22]

$$S =$$

$$a_T = V / t_T, \quad . -2$$

4.5.2.

$$m = 0$$

$$m_0 = m, m_1 = k_1 \cdot m, m_2 = k_2 \cdot m, m_3 = k_3 \cdot m.$$

(.4.5.1.).

⁴¹ $P_E \leq P_g,$

⁴² [1, .1.25].

$a_{\max} \approx 0.8 \cdot -2.$ t-

(t).

⁴³ $T_T' - T_c - .4.3.$

5. (.3)

:

$$^{44} D = \dots$$

$$t = [1, \dots 2.8].$$

$$l_1 = 3t$$

$$l_2 = \left[\frac{H \cdot U_n}{f(D + d_k)} + 1.5 \dots 2 \right] \cdot t.$$

$$l_2 = \dots$$

$$^{45} l'_3 = \dots$$

$$L' = 2(l_1 + l_2) + l'_3.$$

$$^{46} L = \dots$$

$$l_4 = (L - L')/2$$

5.1

$$: \dagger_B = \dots, \dagger_T = \dots (\dots)$$

.4.)

⁴⁷

$$\delta' = \frac{F}{t \cdot [\sigma_C]},$$

$$[\dagger_C] \dots ; [\dagger_C] = 0.5 \cdot \dagger_T [1, \dots 62].$$

⁴⁴ $D, d_k \dots 2.$

⁴⁵

⁴⁶ L 1200, 1300, 1420, 1800 2300 L ≥ L'

⁴⁷ F- . 2.

$$M_C, M_D$$

$$T_C, T_D.$$

$$M_E = \sqrt{M_C^2 + T_C^2}$$

$$M_{DE} = \sqrt{M_D^2 + T_D^2}$$

53

$$\tau_E = M_E / W \leq [\tau] = [\tau_C],$$

W -

$$W = 0.1(D^4 - D^4) / D$$

$$D = D - 2\delta$$

5.1.3.

$$(\quad .3) \quad ,$$

$$\tau_T = (\quad .4)$$

$$M = F_B(a + a_1)$$

$$\sigma = \frac{M}{0.1 \cdot d_0^3} = \leq [\sigma] = 0.5 \cdot \sigma_T$$

5.1.4.

$$\sigma = \frac{4 \cdot F_B(a + 2a_1)}{0.7k \cdot \pi(d_0 + 0.7k)^2} = \leq [\sigma] = 0.9 \cdot [\sigma]$$

$$k - ; \quad k = .$$

5.1.5.

$$n = \frac{60 \cdot v \cdot U_n}{\pi \cdot (D + d_k)}, \quad -1$$

$$C' = F \cdot \sqrt[3]{60 \cdot n \cdot L_h / 10^6} = \leq C =$$

L_h . . . 3.4.

5.1.6.

[2,

. 8]

$$d_K =$$

$$(\dagger_T = \quad .)$$

56

$$F_0 = F / e^{fr} ,$$

f -

, r -

;

$f =$, $r =$

[1, .63].

$$F_3 = \frac{F_0}{z \cdot (f + f_1) \cdot (e^{fr_1} + 1)},$$

z -

, f_1 -

, r_1 -

;

$$^{57} z = , f_1 = f , r_1 = 2f [1, .63].$$

54

. 3.4.

$$F_r = F_B, V = 1, r = 10/3$$

55

56 F - . 2.

57

($z = 2$).

$$F = F_3 \cdot f_1$$

58

$$\tau = \frac{4 \cdot 1.3 \cdot k \cdot F_3}{f \cdot d_1^2} + \frac{k \cdot F \cdot l}{0.1 \cdot d_1^3} \leq [\tau_p],$$

k -

, l -

, d_1 -

;

$$k = , l = , [\tau_p] = 0.8 \cdot [\tau_T] / 1.5.$$

5.2

(. . . 4)

$$\tau_C = .$$

$$u' = \frac{F}{t \cdot [\tau_C]},$$

$[\tau_C]$ -

;

$$[\tau_C] = 0.2 \cdot \tau_C.$$

59

$$u'' = 0.02D + (6...10)$$

$${}^{60} u = [3].$$

5.2.1.

61 (.).

$$D = (. . . 9)$$

62

$${}^{63} : d = , D = , B = ,$$

d_2

=

,

=

,

$0 =$

.

58

$$k \geq 1.5, l = . . . 2.5. [1]. \quad \tau > [\tau_p], \quad (z).$$

59

. . . 12

60

61

62

(. . . 4.2) 4

63

- [2, .9 10].

Y ,

1

2 [2, .13].

64

$$a = l_3 - l_9$$

$$d_0 = d_2$$

$$a_1 =$$

$$l_0 = (0.8...1.5) \cdot d_0$$

$$l_0 =$$

$$L_1 = , L_2 = , L_3 = , L_4 = ,$$

$$L_5 = .$$

5.2.2.

$$\sum M_A = 0 \quad F_B =$$

$$\sum M_B = 0 \quad F_A =$$

$$\sum Y = F_A + F_B - 2F_k = 0$$

$$M_C, M_D$$

$$T_C, T_D$$

$$M_{CE} = \sqrt{M_C^2 + T_C^2}$$

$$M_{DE} = \sqrt{M_D^2 + T_D^2}$$

$$\tau_E = M_E / W \leq [\tau] = [\tau_C],$$

W -

$$W = 0.1(D^4 - D^4) / D,$$

$$D = D - 2u$$

5.2.3.

$$\tau_T = [\tau].$$

$$\begin{aligned} \sum M_E &= 0, & R_L &= \\ \sum M_L &= 0, & R_E &= \\ \sum Y &= R_E + F_L - F_A - F_B = 0 \end{aligned}$$

$$M_A =$$

$$M_B =$$

$$\tau_n = \frac{M}{W} = \frac{M}{0.1d^3} \leq [\tau_H] = 0.5 \cdot \tau,$$

d -

5.2.4.

5.2.5.

1.

2. ,
3. , , , .
- 4.
- 5.
- 6.

, , (U_p P_p) (T_T).

: m (),
 V_T (\cdot^{-1}),

1. ⁶⁹ (.4).

2. .

$$m_T = 0.4 \cdot m [1. .13].$$

$$F = (m + m_T) \cdot g / Z_K$$

Z_K - ; $Z_K = 4.$

⁷⁰ [1, .III.2.3]

$$V_T = \cdot^{-1} : D_K =$$

⁶⁹ (. . . .7,).

⁷⁰ $V \geq V_T.$

$$F_K = \dots$$

$$d = \dots ; D_1 = \dots (\dots .10).$$

$$W_C = (m + m_T) \cdot g \cdot \left(\frac{f \cdot d + 2 \cdot \sim}{D_K} \cdot k_p + \Gamma \right),$$

$f = \dots, \sim = \dots$

$k_p = \dots$

$\Gamma = \dots ; f = [1, .33], \sim = [1, .128], k_p = [1, .33], \Gamma = [1, .2.10].$

3.

3.1

$$P' = W_C \cdot V_T / y,$$

$\eta = [1, .1.18].$

$\eta = [1, .3.5] :$

$P = \dots, n = \dots^{-1},$

$T = H \cdot \dots,$

$J_P = \dots^2, = 25\% P_{25} =$

$d_1 = \dots, h = [1, .$

.3.6].

$$: [1, .38].$$

3.2.

¹ $P \geq P'$

² $P \geq P'$

³ $P \geq P'$

$$n_K = \frac{60 \cdot 10^3 \cdot V_T}{f \cdot D_K}, \quad -1$$

$$i = n / n_K$$

$$a'_\Sigma = 0.5 \cdot D_1 + h + 100$$

$$P_p =$$

$$n_p = -1.$$

$$U_p =,$$

$$d = [],$$

$$d_1 = [].$$

$$V = \frac{f \cdot D_K \cdot n}{60 \cdot U_p}, \quad -1$$

3.3.

$$T_H = 9550 \cdot P / n$$

$$T_M = k_1 \cdot k_2 \cdot T_H,$$

$$k_1 = ,$$

$$k_2 = ; \quad [1, \quad .1.35]$$

$$k_1 = , k_2 = .$$

¹ (. .11 [5, .LXII]
 $i, a \geq a'_\Sigma$

[5, .LXIV]
 $P_p \geq P_g, U_p -$
 [2, .27 28], [5, .LXI LXIII].
 27

$$^1 \quad []: \quad T_M = \dots ,$$

$$J_{M_1} = \dots^2, \quad d = \dots \quad d_1 =$$

3.4.

$$T_M' = k_1 \cdot k_2 \cdot T ,$$

$T -$

$$T = T_H \cdot U_p \cdot Y_p ,$$

$\eta_p -$

$$; \quad \eta_p = [1, \dots .1.18]$$

$$[] ; T_M = \dots , J_{M_2} = \dots^2, d = ,$$

$d_1 = \dots$

3.5.

$$a_T = \left[\frac{Z}{Z} \cdot \left(\frac{\xi}{1.2} - f \cdot \frac{d}{D_K} \right) + (2 \cdot \dots + f \cdot d) \frac{1}{D_K} \right] \cdot g$$

$Z -$

, $\xi -$

$$; \quad Z = 2, \xi = [1, \dots .33].$$

$$t_T = V / a_T$$

2

¹ $T_M \geq T_M'$,
III.5.6]. (\dots .6, .7).

[1, \dots .

²

;

$m = 0$.

$$F_0^T = (m_T + m) \cdot \left[(2 \cdot \sim + f \cdot d) \frac{1}{D_K} - r \right] \cdot g$$

$$T_T' = u \cdot (J_p + J_{M_1}) \cdot \frac{n}{9.55 \cdot t_T} + 9.55 \cdot (m_T + m) \cdot \frac{V^2}{n \cdot t_T} \cdot y - F_0^T \cdot \frac{D_K}{2 \cdot U_p} \cdot y$$

1

$$T_T = \dots,$$

$$T_T'$$

$$S = [1, \dots 1.23],$$

$$V = V \dots$$

$$S = 0.5 \cdot V \cdot t_T$$

4.

$$a = \left[\frac{Z}{Z} \cdot \left(\frac{\xi}{K_{\xi}} + \frac{f \cdot d}{D_K} \right) - (2 \cdot \sim + f \cdot d) \frac{K_p}{D_K} \right] \cdot g$$

K_{ξ} -

$$; \quad K_{\xi} = [1, \dots 1.27].$$

$$[t] = V / a_n$$

$$T = 0.5 \cdot (T + \mathbb{E}_{\min} \cdot T_H)$$

1

[1, \dots 5.11]

[1, \dots 5.13]

$T_T \geq T_T'$

$\Psi_{\min} =$

;

 $\Psi_{\min} =$ [1, .35].

$$F_0 = (m_T + m) \cdot (2 \cdot \sim + f \cdot d) \frac{K_p}{D_K} \cdot g$$

$$T_C = F_0 \cdot \frac{D_K}{2 \cdot U_P \cdot y}$$

$$J = J_p + J_{M_1}$$

1

$$t = \frac{\delta \cdot J \cdot n}{9.55 \cdot (T - T_C)} + \frac{9.55 \cdot (m_T + m) \cdot V^2}{(T - T_C) \cdot n \cdot \eta}$$

2

$$a = V / t$$

3

$$K = \frac{\{ \frac{Z}{Z} \cdot \left[\frac{a}{g} + (2 \cdot \sim + f \cdot d) \cdot \frac{K_p}{D_K} \right] - f \cdot \frac{d}{D_K}}{5.}$$

5.

4

1 [1, .1.19].

.4.

2 a .

3 $K_{\{}$.

4 [5. .112].

« ».

$$T_1 = \frac{W_C \cdot D_K}{2 \cdot U_p \cdot y}$$

$$r = T_1 / T_H$$

$$\lambda = T / T_H$$

,

$$J = u \cdot (J_p + J_{M_1}) + 91.2 \cdot \frac{(m + m_T) \cdot V^2}{n^2 \cdot y}$$

$$t = t \cdot \frac{J \cdot n}{9.55 \cdot T_H}$$

$$t - \quad ; \quad T = \} \cdot T_H$$

$$r = \quad [], \quad t_n = \quad .$$

$$t_p = S_1 / V \quad ,$$

$$S_1 - \quad ^2 \quad .$$

$$S = t / t_p \cdot$$

$$^3 = 25\%.$$

$$P_{E25} = k_{25} \cdot x \cdot W_C \cdot V / y$$

$$k_{25} - \quad , \quad , x -$$

4

;

¹ [1, .14 1.5].

² $S_1 = 4.5 \dots 6$.

³ $P_{E25} \quad P_{25}$. $P_{E25} < P_{25}$,

⁴ [1, .1.16]

x .

$$k_{25} = [1, . 1.32] \quad , X =$$

$$S = [1, . 1.6,] .$$

6.

1

$$F_K =$$

$$F_p = k_1 \cdot X_1 \cdot F_k$$

$$k_1 - \quad ; \quad X_1 - \quad ,$$

$$k_1 = [5, . 34],$$

$$X_1 =$$

$$[5, . 116]$$

2.

¹ . . 2
²

1. . . , . . .
- .- ∴ ,
1983-350 ., .
2. . .
- : , 1990-72
„ .
3. 6636-69 « .».
4. . . . - ∴
, 1983-543 ., .
5. . . .- ∴ , 1978-576 ., .

.1

,

11	14	320-400 450	60 70	14 20	320, 400, 450 500, 560, 630	70 80

.2

(6627-74)

			D	b	h	d	d_2	r_4	d_1
13	5.0	4.0	75	48	75	42	45	10	37.129
14	6.3	5.0	85	54	32	48	50	12	42.587
15	8.0	6.3	95	60	90	52	55	13	46.587
16	10.0	8.0	110	65	100	56	60	13	50.046
17	12.5	10.0	120	75	115	64	70	14	57.505
18	16.0	12.5	130	80	130	70 10	80	16	59.0
19	20.0	16.0	150	90	150	80 10	90	18	69.0
20	25.0	20.0	170	102	164	89 12	100	20	77.0
21	32.0	25.0	190	115	184	100 12	110	23	87.0

.3

$m,$	5.0	6.3	8.0	10.0	12.5	16.0	20	25
$u_0,$	10	12	14	16	16	18	20	24

.4

,

	\dagger_B	\dagger_T	\dagger_{-1}
15-32	150	-	-
18-36	180	-	-
1050-74			
20	420...500	250	170...220
45	610...750	360	250...340
4543-61			
40	730...1050	650...900	320...480
380-60			
3	380...470	210...240	-
5	500...620	260...280	-

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n.

	1.4	1.6	1.7
	1.3	1.5	1.6

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	200	300	400	500
[],	700	3150	5600	8000
$I_M,$ 2	0.0763	0.471	1.375	3.56
d_1	50...69.5	50...69.5	60...89.5	90
d	40...55	40...55	55	65

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			l , .	I_H .
	d	d_1		
1	40	60	700	0.061
2	50	70	1400	0.1195
3	60	90	3150	0.2215
4	75	100	5600	0.458
5	90	120	8000	0.891

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	m , .	F , .
22	0.55	60.0
42	1.56	160.0
62	5.20	300.0
62	3.50	200.0
15	1.55	100.0

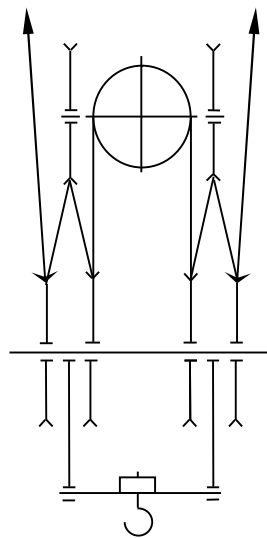
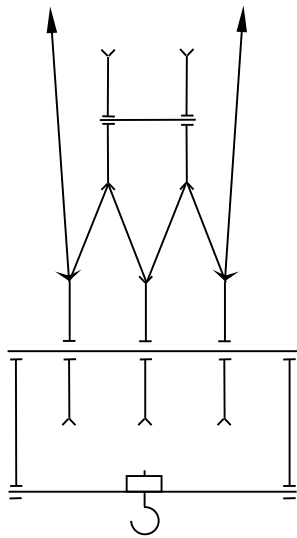
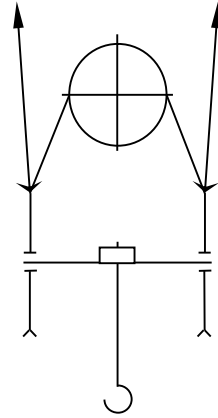
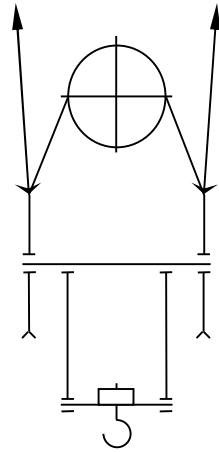
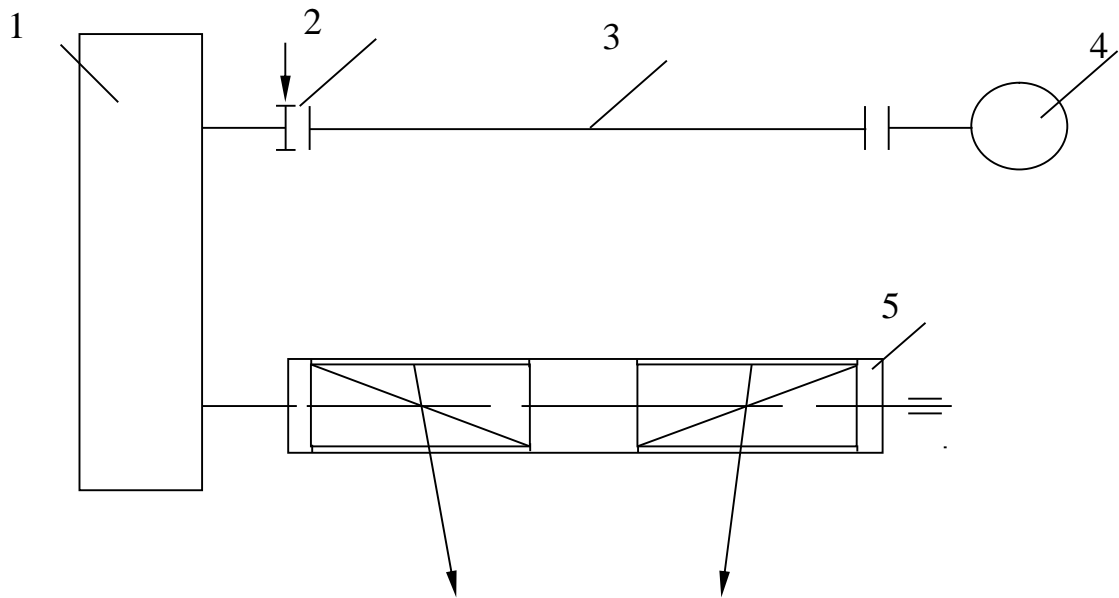
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a_Σ ,	D ,	$F'(\)$		
250	75	12	18	12.5
300	80	20	22.5	14
350	110	32	25	18
400	110	32	25	20
500	150	50	40	25
650	160	63	71	45
750	200	100	125	63

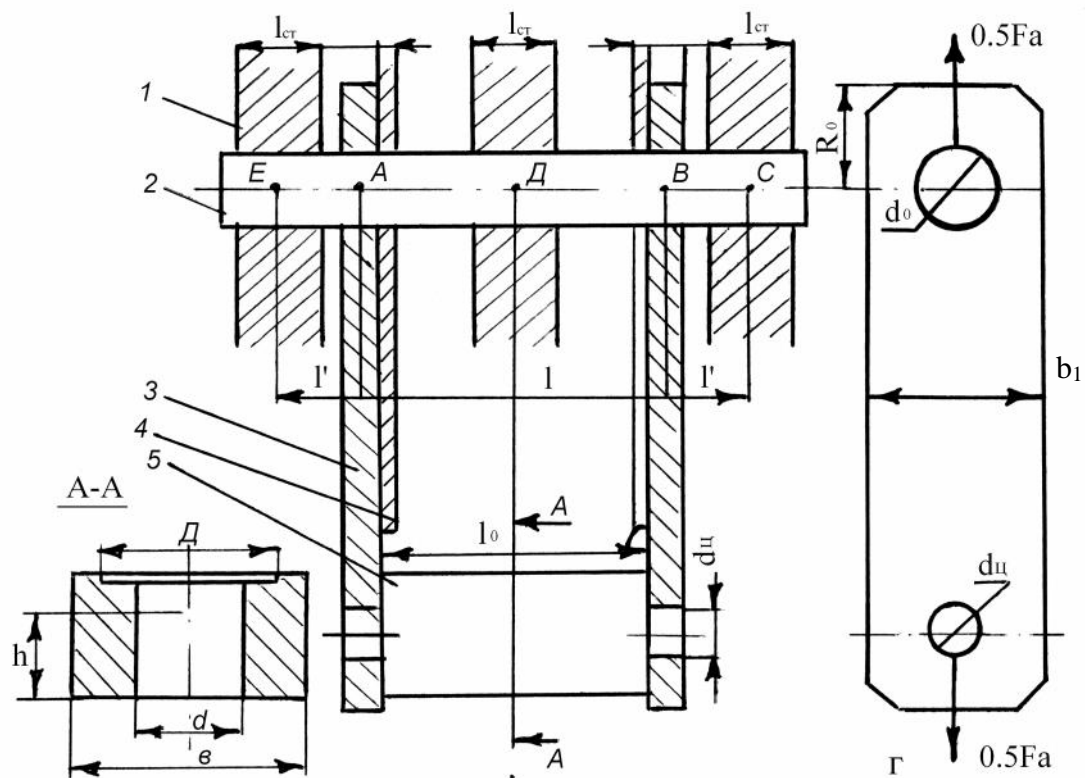
D_{xk}	160	200	250	320	400	500	560	630
	1607	1609	3610	3612	3616	3620	3622	3624
D_1	190	230	290	360	450	550	600	680

			$p_p()$					
			$n_p = 750$ $-I$			$n_p = 1000$ $-I$		
-280	25	10	4.3	2.0	1.8	6.0	2.0	1.9
		16	3.0	1.4	1.2	4.0	1.7	1.5
		31.5	1.4	1.0	0.9	1.9	1.0	0.9
		50	0.9	0.7	0.6	1.0	0.8	0.7
-320	25	12.5	6.5	3.1	2.7	8.1	3.4	3.0
		20	3.6	2.4	1.8	5.6	2.8	2.2
		40	2.5	1.7	1.2	2.8	1.8	1.2
		63	1.2	0.9	0.7	1.7	1.1	0.7
-420	25	16	7.8	5.0	4.8	9.1	6.0	6.5
		25	5.0	3.5	3.0	6.1	4.9	4.4
		50	2.8	2.1	1.6	3.5	2.8	2.2
		80	2.3	1.8	1.3	3.1	2.2	1.7
		125	1.6	1.2	1.0	1.7	1.4	1.2
-480	30	20	11.7	7.3	4.8	14.4	9.0	6.3
		31.5	8.3	5.0	4.0	10.3	6.6	4.8
		63	4.7	3.4	2.5	5.9	4.1	3.0
		100	3.3	3.3	2.2	4.1	3.0	2.7
-560	35	20	19.9	13.3	9.7	23.1	16.6	12.1
		25	15.5	10.6	8.2	21.9	14.1	10.3
		40	10.7	7.8	6.5	13.9	10.0	7.9
		50	8.8	6.5	5.5	12.1	8.6	6.7
		50	5.9	4.4	3.9	7.8	5.5	4.8



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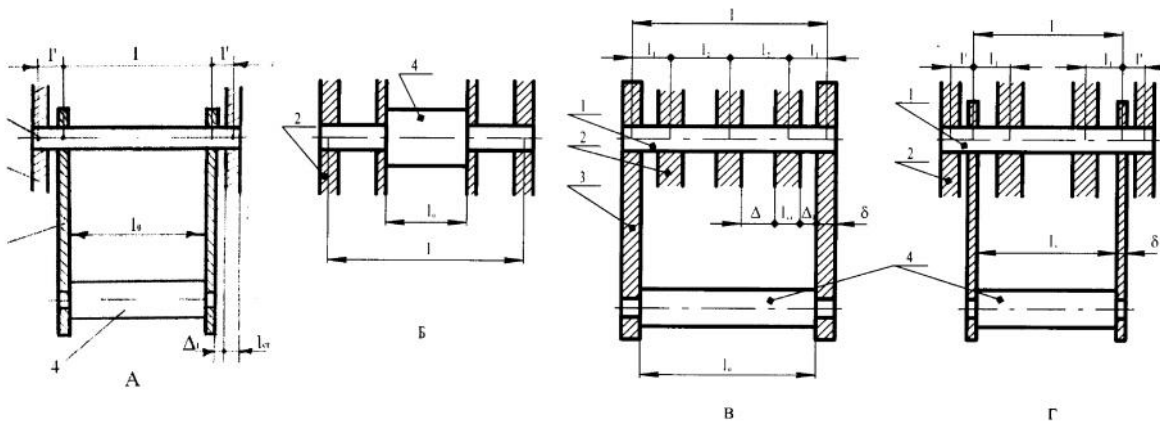
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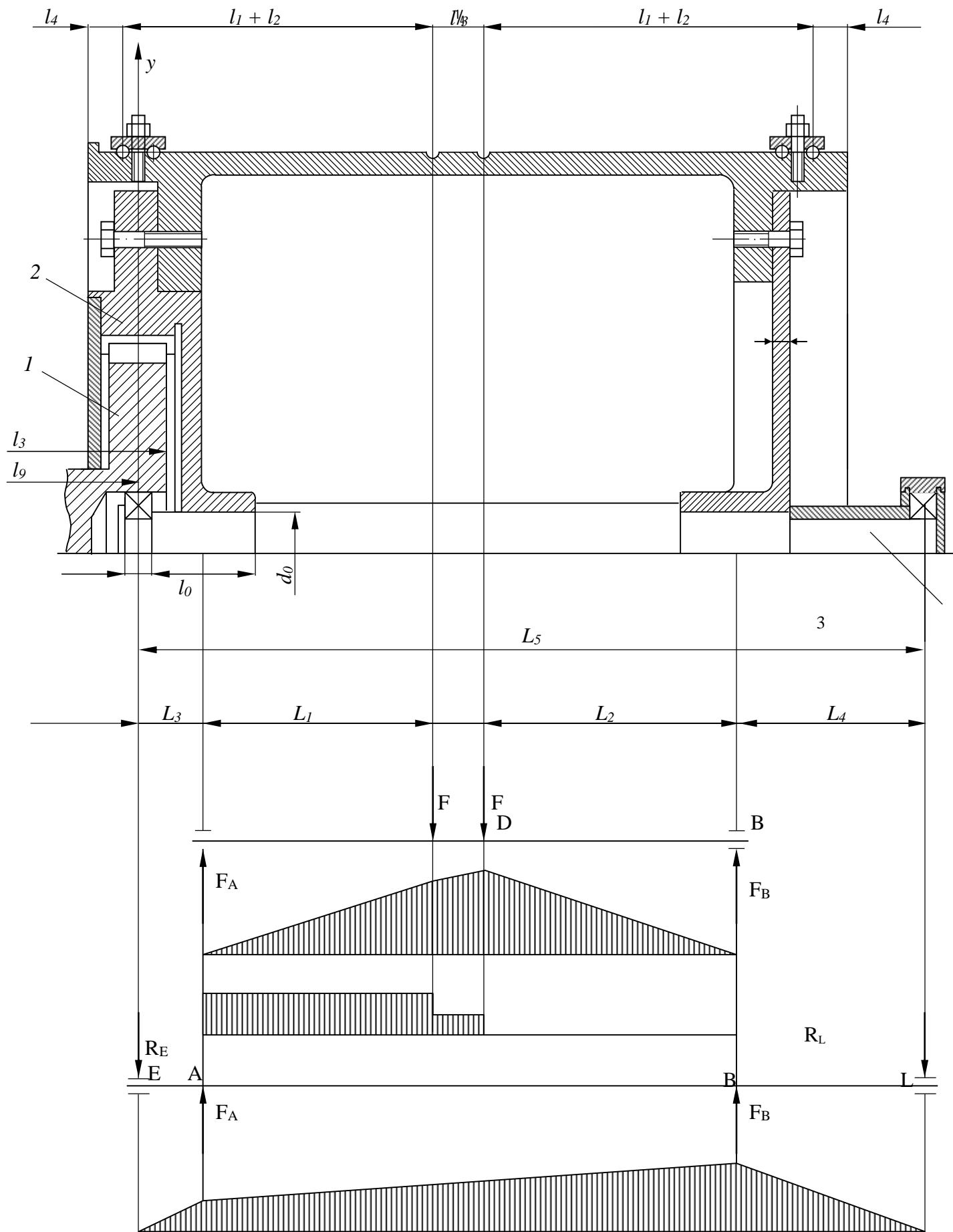


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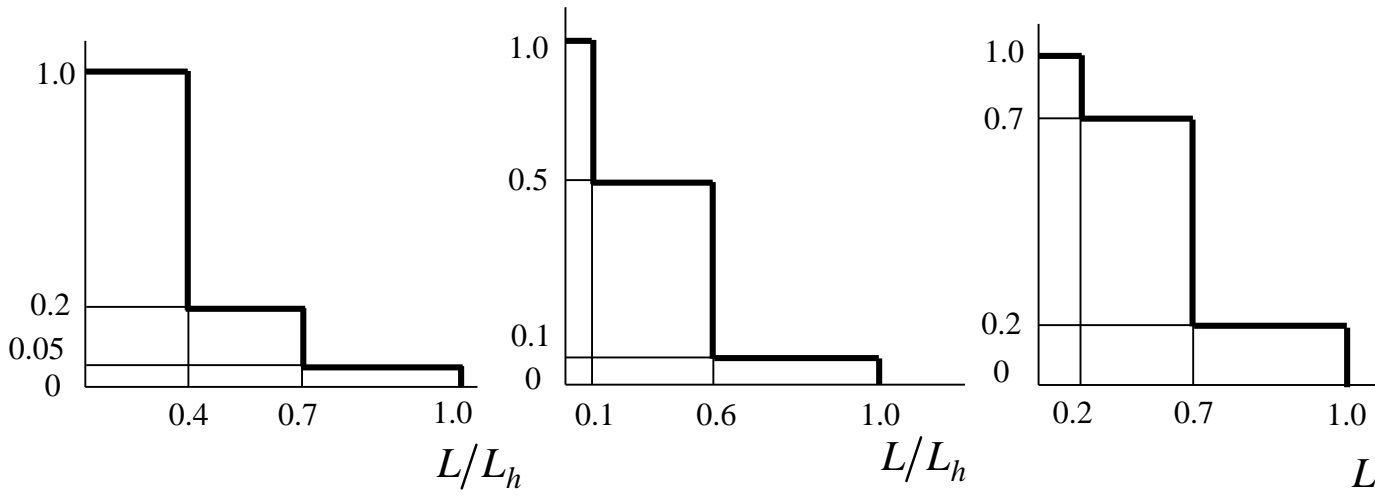
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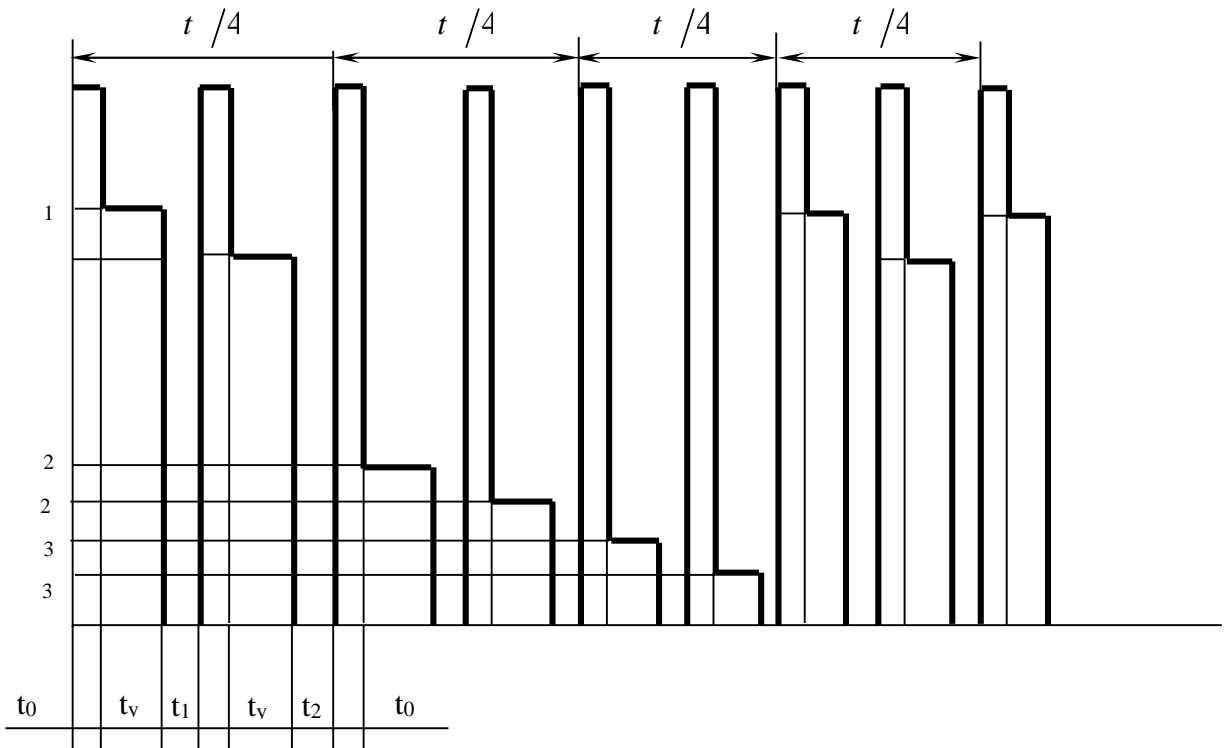
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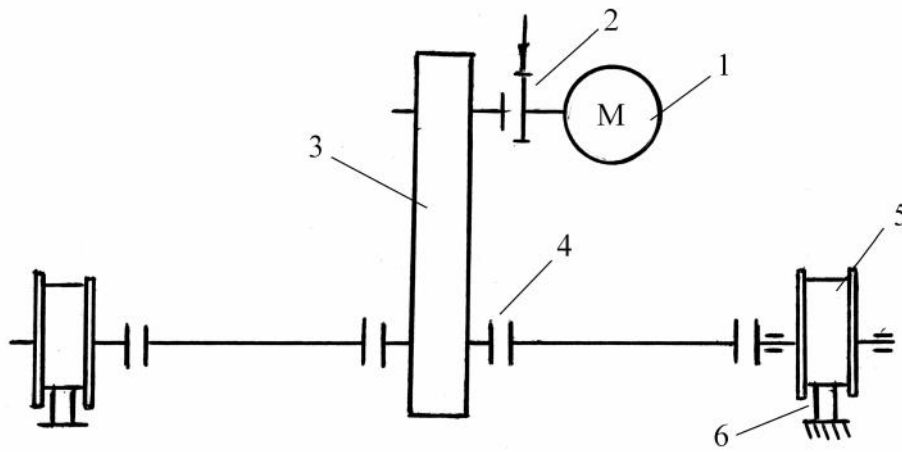
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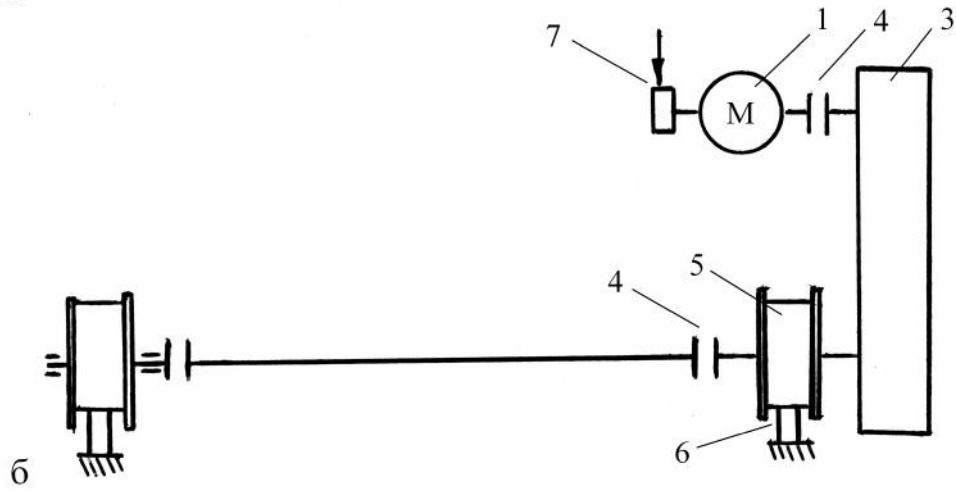
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 , 6- , 7- .