

2. BD-200

2.5 BD-200

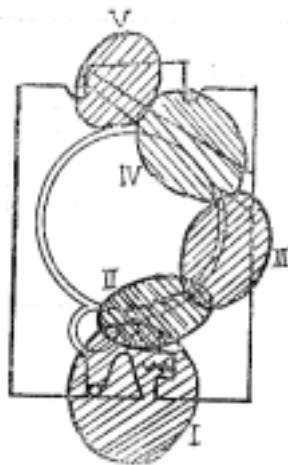
J. Ripka

BD-200

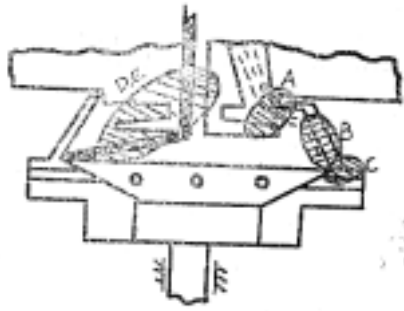
- | | | |
|-----|-----|---|
| (1) | (1) | |
| (2) | (2) | |
| (3) | (3) | |
| (4) | (4) | |
| (5) | (5) | 가 |

2-45

2-46



2-45



2-46

(1)

. 가 .

.

,

.

(linear density) 가

가

.

,

.

가

2-

47

.

0

4

0

가

가

, 1

, 2

. 3

(pressure line)

4

.

5

6

, 5

가

, 6

가

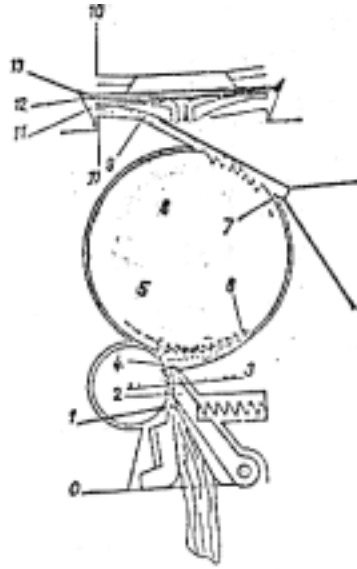
. 6 7

7

.

(cover)

.



2-47 BD-200

7 8 , 8 .

8 10 , 9 ,

. 10 .

1)

. , (), ()가 .

,

가

.

가

.()

2)

2-45 .

가

AB(2-48)가 .

가 1 .

(wire) .

가 가 .

.

AB

. 2-48

가 (AB) (R)

.

AB (vector) (RN) 가

, AB (RT)

(Pa)(2-49) , 1, 2

. $\sum_1^2 RN =$

가 ,

$(\beta_1) \quad 16.7^\circ$
 $\beta = \beta_1 + \beta_2$

$\beta > \Phi + \beta_2 \cdot \cdot \cdot \cdot$

$\beta_2 \quad (AB) \quad , \quad .$

$\beta \quad .$

$3) \quad \text{가}$

β

Θ

$\text{가} \quad . \quad \Theta \quad \beta$

$\text{가} \quad \text{가} \quad .$

$\Theta = 90^\circ - \beta$

$3)$

$2-45 \quad . \quad .$

$\text{가} \quad .$

$, \quad ,$

$,$

가

$.$

$(2) \quad 2-50$

$. \quad (D)\text{가} \text{가} \quad .$

$(D) \quad (O) \quad \text{가} \quad (Do)$

•

2

70

0

•

3

2-45 . 가

(channel edge 2-47 8)

.

가 , , , , ,

.

. (2-47 8)

.

가 .

,

.

2-51 가 (Vo)

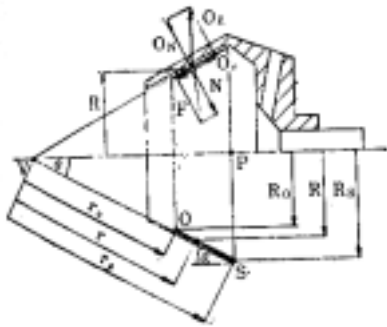
.

가

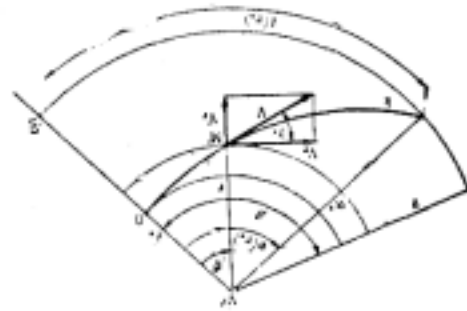
가

.

60 ° , (B) (VB)



2-52



2-53

V_Φ :

V_γ :

$\Phi(\gamma)$: 가 (2-53 K)

W :

$$V_\Phi = W \cdot \gamma \cdot \sin \alpha \cdot \cdot \cdot \cdot$$

().

$$Vr = \sqrt{W^2 \cdot \sin \alpha (\sin \alpha - f \cdot \cos \alpha)} \times \sqrt{r^2 - r_0^2} \cdot \cdot \cdot \cdot$$

$$\varphi(r) = \frac{[\ln(r + \sqrt{r^2 - r_0^2}) - \ln r_0]}{\sqrt{1 - f \cdot \cot \alpha}} \cdot \cdot \cdot \cdot$$

가

(α), (W), (f) .

(α) ,

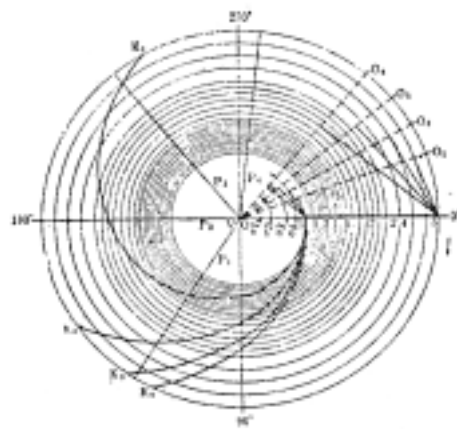
$$(\sin \alpha - f \cdot \cos \alpha) > 0$$

$$\alpha > \arctan \cdot f \cdot \cdot \cdot \cdot$$

가 . (α)

α 가 $25^\circ \sim 30^\circ$.

2-54 . $f=0.3$, $K_1 \sim K_4$ (α)가 20° , 30° , 40° , 50° . α



2-54

2) (Collecting Surface)

,

(back doubling) .

가 .

(G)(2-56)

. 2-56

(6)

(7) (

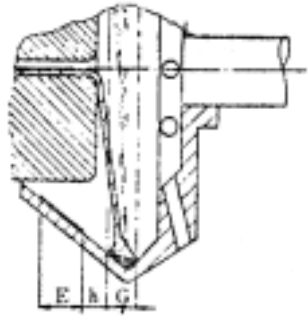
(peeling point)

)

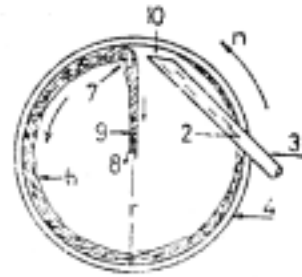
(8)

가 . (7)

가
(W)가 .



2-55



2-56

$$W = \frac{2\pi r}{tv} \dots\dots\dots$$

, v :

t :

r :

W N 가 .

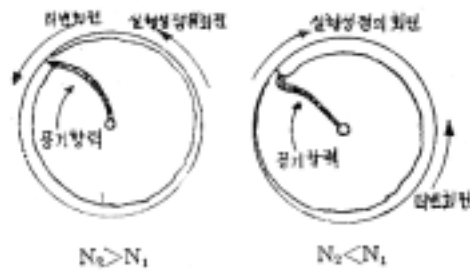
$$W = \frac{2\pi rN}{V} \dots\dots\dots$$

60mm , 가 30,000 , 가
30m/min (W) 188.4가 .
가

가

.

가 .



2-57

2-57

N_1 ,

N_2

$N_2 > N_1$ $N_2 < N_1$ 가 가 .

$N_2 > N_1$

$N_2 < N_1$

(bridge fiber

)가

$N_2 < N_1$

$L/\pi d$

가

(

L

, d

).

,

2 가 .

, $d \geq 2L$

(S_o) , ρ , ω

, R .(.).

$$S_o = \frac{1}{2} \rho \omega^2 R^2 \cdot \cdot \cdot \cdot \cdot$$

μ , Θ , T

,

$$T = S_o e^{\mu \Theta}$$

S_{min} ,

$$S_{min} \geq \cdot \cdot \cdot \cdot \cdot \cdot \cdot$$

가 ,

$$S_{min} \geq \frac{\rho}{2} \left(\frac{2\pi}{60} nR \right)^2 e^{\mu \Theta} \cdot$$

ρ , μ , Θ 가 ,

$$R \leq \alpha \omega^{-1} (S_{min})^{\frac{1}{2}} \cdot \cdot \cdot \cdot \cdot$$

가 .

W_A ,

$$W_A = 7.4 \times 10^{-6} \times N^{2.5} \times d^{3.8} \cdot \cdot \cdot \cdot \cdot$$

N : (rpm)

d : (cm)

(Shirley) . 가

.

BD-200 가 30,000~36,000

66mm

가

2-58 ㉠

2-58 ㉠

(=) 가

㉠㉡

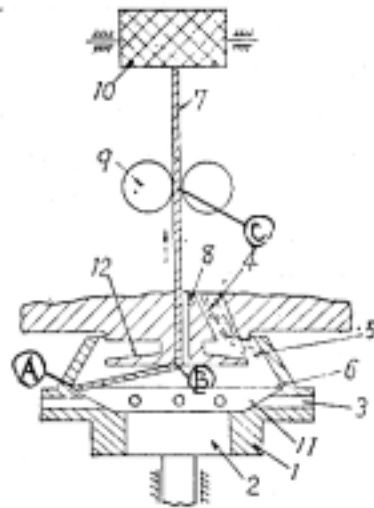
㉠㉡

㉠

㉠

가

가



2-58