

(Spinning)

4.

가.

< 1>.

,

가

.

V

. < 2>

n rpm,

d_m,

d_f

,

.

$$= n \times \frac{d_m}{d_f}$$

.

(rpm) =

×

1,440rpm,

V

1:1

.

10in,

(wharve)

1¹/8in

.

$$1,440 \times \frac{10}{1\frac{1}{8}} = 12,800\text{rpm}$$

가

가

.

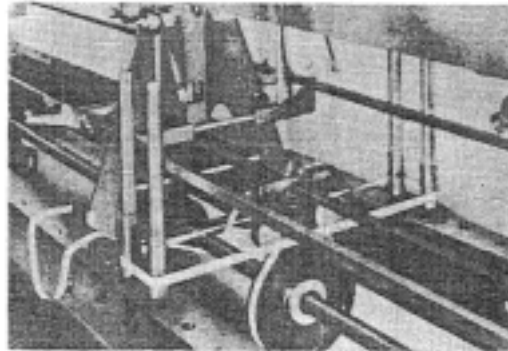
가

,

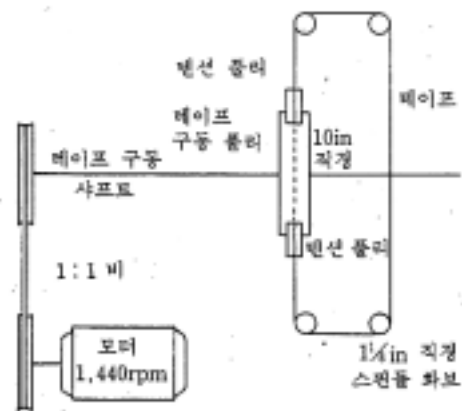
,

,

,



< 1>



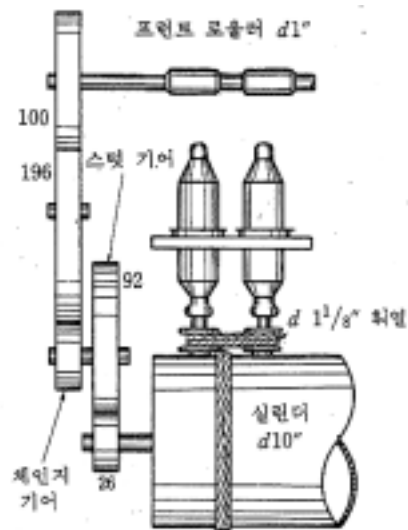
< 2>

< 3>

1

가 12,000rpm 가 ,
(fleece) 1 12,000
가

$$(\text{in}) = \frac{(\text{rpm})}{(\text{in} / \text{min})}$$



< 3>

< 3>

,

(in/min)

$$= (\text{rpm}) \times (\text{in})$$

$$= 1,440 \times \frac{26}{92} \times \frac{\text{Ch}}{100} \times (1 \times \pi)$$

$$= 12.78\text{Ch}$$

$$, \text{Ch} =$$

.

$$\frac{12,800}{12.78\text{Ch}} = \frac{1001.56}{\text{Ch}}$$

$$1001.56$$

$$. 1001.56$$

(twist constant)

,

,

가 가 .

36t .

$$= \frac{1001.56}{36} = 27.82 \quad 28\text{tpi}$$

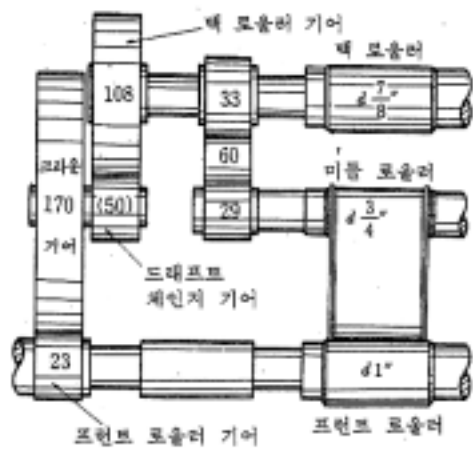
. ,

(mechanical draft) .

, 가 가
가 .

3~8% .

(twist contraction)



< 4> 3

< 4> 3 .

가 1

.

$$(\text{in}) \times \pi = 7/8 \times \pi = 2.75\text{in}$$

.

$$1 \times \frac{108}{\text{Ch}} \times \frac{170}{23} \times 1 \times \pi = \frac{2507.81}{\text{Ch}}$$

, Ch=

.

$$\frac{2507.81/\text{Ch}}{2.75} = \frac{911.93}{\text{Ch}}$$

911.93

(draft constant)

.

가 50t

, ,

$$\frac{911.93}{\text{Ch}} = \frac{911.93}{50} = 18.23 \quad 18$$

. 20

.

$$\text{—————} = \frac{911.93}{20} = 45.59 \quad 46\text{t}$$

가 .

$$= \quad \times \text{—————}$$

,

$$50 \times \frac{18.23}{20} = 45.57 \quad 46\text{t}$$

가
 . ,
 .
 , (break draft),
 (main draft)가
 (roving)

$$= \frac{\frac{33}{29} \times \frac{3}{4} \times \pi}{1 \times \frac{3}{4} \times \pi} = 1.04$$

$$= \frac{1 \times \frac{29}{33} \times \frac{108}{(50)} \times \frac{170}{23} \times 1 \times \pi}{1 \times \frac{3}{4} \times \pi} = 17.54$$

(total draft)

$$1.04 \times 17.54 = 18.24 \text{가}$$

.
 가

$$(\text{in/min}) = \frac{(\text{rpm})}{\times \text{Ne}} = \frac{(\text{rpm})}{1 \text{in}}$$

$$(\text{lb}) = \frac{(\text{in / min}) \times (\text{hr}) \times 60}{36 \times 840 \times (\text{Ne})} \times$$

) 가 12,800rpm, Ne25 4.0

. 98% , 8 1 lb 가?

$$= \frac{12,800}{4.0 \times 25} = 640(\text{in} / \text{min})$$
$$= 640 \times \frac{8 \times 60}{36 \times 840 \times 25} \times 0.98 = 0.398(\text{lb})$$