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(1)

- Nrpm(1,740rpm)
- total draft change wheel TDC(32~41T)
- fine draft change wheel FDC(98~101T)
- main draft change wheel MDC(42T, 56T, 74T)
- break draft change wheel BDC(35T, 43T, 58T)

, () N = 1,740rpm, TDC = 37T, FDC = 100T, MDC = 56T,
BDC = 43T .

$$1,740 \times \frac{136.4 \times 43 \times 70 \times \text{TDC} \times 50 \times 20}{125 \times 85 \times 72 \times \text{FDC} \times \text{MDC} \times 25} = 46,691.6 \times \frac{\text{TDC}}{\text{FCD} \times \text{MDC}} (308\text{rpm})$$

3) 3rd roller

$$1,740 \times \frac{136.4 \times 43 \times 70 \times \text{TDC} \times 50 \times 30 \times \text{BDC} \times 17}{125 \times 85 \times 72 \times \text{FDC} \times \text{MDC} \times 15 \times 58 \times 17} = 1,610.1 \times \frac{\text{TDC} \times \text{BDC}}{\text{FCD} \times \text{MDC}} (457.4\text{rpm})$$

4) 2nd roller

$$1,740 \times \frac{136.4 \times 43 \times 70 \times \text{TDC} \times 50 \times 30 \times \text{BDC}}{125 \times 85 \times 72 \times \text{FDC} \times \text{MDC} \times 15 \times 56} = 1,667.6 \times \frac{\text{TDC} \times \text{BDC}}{\text{FCD} \times \text{MDC}} (473.8\text{rpm})$$

5) front roller

$$1,740 \times \frac{136.4 \times 20}{125 \times 20} = 1,899(\text{rpm})$$

6) calender roller

$$1,740 \times \frac{136.4}{125} = 1,899(\text{rpm})$$

7) tube wheel

$$1,740 \times \frac{136.4 \times 43 \times 20 \times 17 \times 24}{125 \times 85 \times 24 \times 20 \times 55} = 297(\text{rpm})$$

(2)

1) lifter roller ~ back roller

$$\frac{25 \times 20 \times 38\pi}{19 \times 20 \times 51\pi} = 0.98$$

2) back roller ~ 3rd roller ()

$$\frac{20 \times 30 \times \text{BDC} \times 17 \times 38\pi}{20 \times 15 \times 58 \times 17 \times 38\pi} = 0.03448 \times \text{BDC}(1.48)$$

3) 3rd roller ~ 2nd roller

$$\frac{17 \times 58 \times 38\pi}{17 \times 56 \times 38\pi} = 1.04$$

4) 2nd roller ~ front roller ()

$$\frac{56 \times 15 \times \text{NDC} \times \text{FDC} \times 72 \times 85 \times 20 \times 50\pi}{\text{BDC} \times 30 \times 50 \times \text{TDC} \times 70 \times 43 \times 20 \times 38\pi} = 1,498 \times \frac{\text{MDC} \times \text{FDC}}{\text{BDC} \times \text{TDC}} (5.27)$$

5) front roller ~ calender roller

$$\frac{20 \times 50.7\pi}{20 \times 50\pi} = 1.01$$

6) lifter roller ~ calender roller ()

$$\frac{25 \times \text{MDC} \times \text{FDC} \times 72 \times 85 \times 50.7\pi}{19 \times 50 \times \text{TDC} \times 70 \times 43 \times 51\pi} = 0.5319 \times \frac{\text{MDC} \times \text{FDC}}{\text{TDC}} (8.05)$$

(3)

1)

..... Nc

..... G(gr/6yd), G'(kg/h) , 1 . 1

(P) ,

$$P = N_c \times \frac{50.7\pi \times G \times 1 \times 60}{25.4 \times 36 \times 6 \times 7,000} = 0.00007921 \times N_c \times G(\text{lb/h})$$

$$P' = \frac{50.7\pi \times G' \times 1 \times 60}{1,000 \times 1,000} = 0.009552 \times N_c \times G'(\text{kg/h})$$

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2)

· H (hank)

· 1hank = 840yd , 1 · 1 (P) ,

$$P = \frac{H \times 840 \times G}{6 \times 7,000} = 0.200 \times H \times G (\text{lb/h})$$

$$P' = \frac{H \times 840 \times G'}{0.9144 \times 1,000} = 0.9186 \times H \times G' (\text{kg/h})$$

(4)

6y (gr) , 1m (g)

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(5)

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(in)	14	18			20			24		
(in)	36	42	44	48	42	44	48	42	44	48
(kg)	8.5	16.3	71.1	18.7	20.2	21.1	23.0	29.0	30.4	33.2
(lb)	18.6	35.9	37.3	41.1	44.4	46.5	50.7	63.9	66.9	72.1

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10mm .

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80%가 .

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1	20	21	18	17	15
	21	22	19	18	16

: 310gr/ 6yd (,)
 : 8가

롤러 (50.7 mm ϕ)
 125 mm ϕ
 모터 (1,760 rpm)
 135mm ϕ

