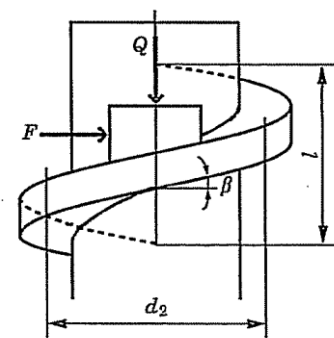
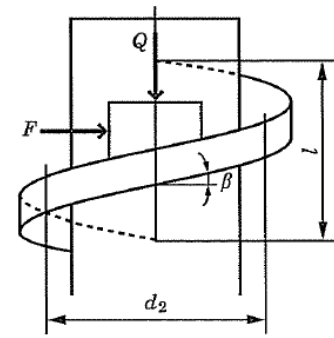


正 誤 表 (図解 モノづくりのための やさしい機械設計)

ページ	行	正	誤
36	3	規格化しておく	規格化おく
59	5	有効径	有効経
61 図 2.14		 <p>◆図 2.14 ねじの効率</p>	 <p>◆図 2.14 ねじの効率</p>
128	5	29500	48900
		1.127	0.680
	6	0.29	0.26
	9	1.50	1.64
	11	1.50	1.64
		5990	6340
	13	5990	6340
		9068	7650
14	9,068	7,650	
157	5	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{z_1 z_2}{z_1 + z_2}$	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{2z_1 z_2}{z_1 + z_2}$
160	13	$Z_H = (1/\cos \alpha_0) \sqrt{2/\tan \alpha} = 2.49$	$Z_H = 2\sqrt{1/\sin 2\alpha_0} = 2.49$
	16	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{z_1 z_2}{z_1 + z_2}$	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{2z_1 z_2}{z_1 + z_2}$
	17	右端 20×80	右端 2×20×80
	18	1372	2744
	21	$P = F_0 V = 1372 \times 2.83 = 3883[\text{W}]$	$P = F_0 V = 2744 \times 2.83 = 7766[\text{W}]$
209	13	$T_1 = \frac{\mu \pi d_2^2 (1 - 0.6^2) p_a}{4} \frac{d_2 (1 + 0.6)}{2 \times 2}$	$T_1 = \frac{\mu \pi d_2^2 (1 - 0.6^2) p_a}{4} \frac{d_2 (1 + 0.6)}{2}$
209	14	$d_2^3 = \frac{16T_1}{m \pi p_a (1 - 0.6^2)(1 + 0.6)}$	$d_2^3 = \frac{8T_1}{m \pi p_a (1 - 0.6^2)(1 + 0.6)}$

209	15	$(正) = \frac{16 \times 7.43 \times 10}{0.25\pi \times 0.1 \times 10^6 \times (1 - 0.6^2)(1 + 0.6)} = 14.78 \times 10^{-3}$				
		$(誤) = \frac{8 \times 7.43 \times 10}{0.25\pi \times 0.1 \times 10^6 \times (1 - 0.6^2)(1 + 0.6)} = 7.39 \times 10^{-3}$				
209	16	$d_2 = 0.245$ [m]	$d_2 = 0.195$ [m]			
209	17	$d_1 = 0.6 \times d_2 = 0.6 \times 0.245 = 0.147$ [m]	$d_1 = 0.6 \times d_2 = 0.6 \times 0.195 = 0.117$ [m]			
243	16	S43C 焼入焼戻し(HB290)	S43C 焼きならし(HB200)			
244	17	S43C 焼入焼戻し(HB290)	S43C 焼きならし(HB200)			
	18	$\sigma_{Flim} = 260$ [MPa]	$\sigma_{Flim} = 196$ [MPa]			
		$\sigma_{Hlim} = 686$ [MPa]	$\sigma_{Hlim} = 505$ [MPa]			
246	11	$= \frac{1 \times 1.68}{1.2 \times 1} \frac{260 \times 10^6 \times b \times 2.5 \times 10^{-3}}{2.77}$	$= \frac{1 \times 1.68}{1.2 \times 1} \frac{196 \times 10^6 \times b \times 2.5 \times 10^{-3}}{2.77}$			
	12	$= 3.29 \times 10^5 b$ [N]	$= 2.48 \times 10^5 b$ [N]			
	23	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{z_1 z_2}{z_1 + z_2}$	$F_0 = \frac{\sigma_H^2 K_{HL}}{Z_M^2 Z_H^2 K_V K_O} bm \frac{2z_1 z_2}{z_1 + z_2}$			
	24	$(正) = \frac{(686 \times 10^6)^2 \times 1 \times 2.78 \times 10^{-11}}{2.49^2 \times 1.2 \times 1} b \times 2.5 \times 10^{-3} \times \frac{21 \times 59}{21 + 59}$				
		$(誤) = \frac{(505 \times 10^6)^2 \times 1 \times 2.78 \times 10^{-11}}{2.49^2 \times 1.2 \times 1} b \times 2.5 \times 10^{-3} \times \frac{2 \times 21 \times 59}{21 + 59}$				
	25	$= 6.81 \times 10^4 b$ [N]	$= 7.38 \times 10^4 b$ [N]			
	247	4	$1497 < 3.29 \times 10^5 b \Rightarrow b > 4.55$ [mm]	$1497 < 2.48 \times 10^5 b \Rightarrow b > 6.04$ [mm]		
5		$1497 < 6.81 \times 10^4 b \Rightarrow b > 21.98$ [mm]	$1497 < 7.38 \times 10^5 b \Rightarrow b > 20.3$ [mm]			
6		$b = 22$ [mm]	$b = 21$ [mm]			
12		$F_b = 3.29 \times 10^5 \times 22 \times 10^{-3}$	$F_b = 2.48 \times 10^5 \times 21 \times 10^{-3}$			
13		$= 7240$ [N]	$= 5210$ [N]			
14		$F_p = 6.81 \times 10^4 \times 22 \times 10^{-3}$	$F_p = 7.38 \times 10^4 \times 21 \times 10^{-3}$			
15		$1498$ [N]	$1550$ [N]			
248 表 11.1	伝達力		伝達力		最小歯幅 $b$ [mm]	最小歯幅 $b$ [mm]
	曲げ $F_b$ [N]	面圧 $F_p$ [N]	曲げ $F_b$ [N]	面圧 $F_p$ [N]		
	7,240	1,498	5,210	1,550	22	21
	8,800		6,330			
264 問 3	7	$(F_1 - F_2)r$		$(T_1 - T_2)L$		
	8	$\sqrt{(F_1 + F_2)^2 + W^2} \times a$		$\sqrt{(T_1 + T_2)^2 + W^2} \times a$		

