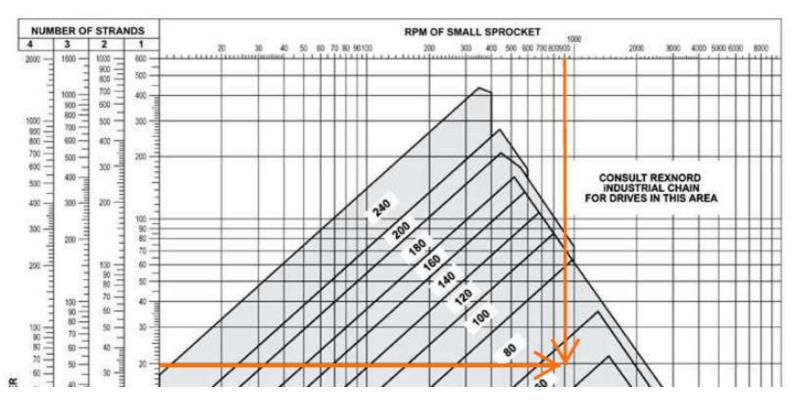
Table 1 Service factors

		Service factors	
Driven equipment	-	Input power	
211ton equipment	Internal combustion engine with hydraulic drive	Electric motor or turbine	Internal combustion engine with mechanical drive
Agitators, liquid stock	1.0	10	1.2
Beaters	1.2	1 <mark>3</mark>	1.4
Blowers, centrifugal	1.0	1 0	1.2
Boat propellers	1.4	1 5	1.7
Compressors			
centrifugal	1.2	1 3	1.4
reciprocating, 3 or more cylinders	1.2	1 3	1.4
reciprocating, singular, 2 cylinders	1.4	1 5	1.7
Conveyors		1/	
uniformly loaded or fed	1.0	V	1.2
not uniformly loaded or fed	1.2	(1.3)	1.4
reciprocating	1.4	1.5	1.7

Drive Engineering Chart

Chart C Trail selection of standard roller chains

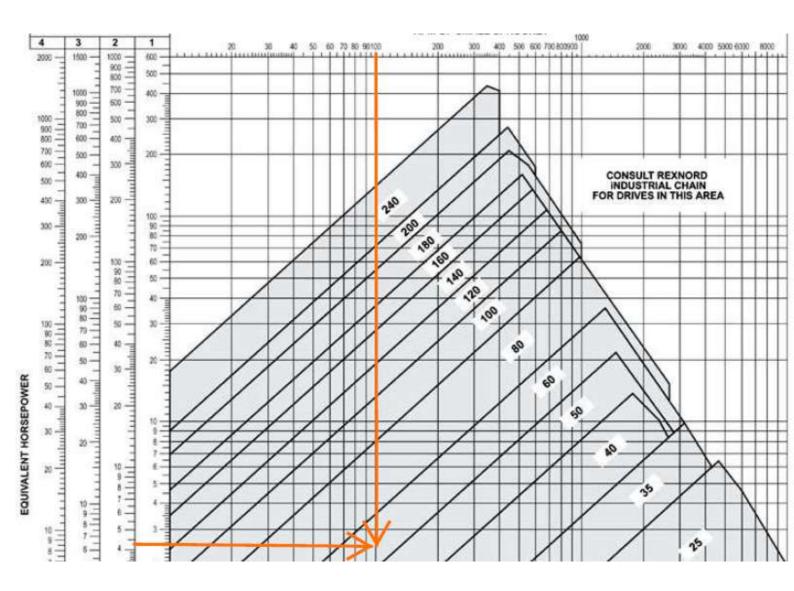


Number of	Maximum							l	Horse	oower	for sl	ngle s	trand	chaln	A	
teeth, in small	bore								RPM of small sprocket							
sprocket	inches	25	50	100	200	300	500	700	900	1000	1100	1200	1400	1600	180	
11	1.250	0.41	0.77	1.44	2.69	3.87	6.13	8.30	10.4	11.4	12.5	11.9	9.4	7.70	6.4	
12	1.344	0.45	0.85	1.58	2.95	4.25	6.74	9.12	11 4	12.6	13.7	13.5	10.7	8.77	7.3	
13	1.500	0.50	0.92	1.73	3.22	4.64	7.34	9.94	12.5	13.7	14.9	15.2	12.1	9.89	8.2	
14	1.750	0.54	1.00	1.87	3.49	5.02	7.96	10.8	13 <mark>-</mark> 5	14.8	16.2	17.0	13.5	11.1	9.2	
15	1.938	0.58	1.08	2.01	3.76	5.41	8.57	11.6	14 <mark>-</mark> 5	16.0	17.4	18.8	15.0	12.3	10.	
16	2.125	0.62	1.16	2.16	4.03	5.80	9.19	12.4	15 <mark>6</mark>	17.1	18.7	20.2	16.5	13.5	11.3	
17	2.313	0.66	1.24	2.31	4.30	6.20	9.81	13.3	16 <mark>7</mark>	18.3	19.9	21.6	18.1	14.8	12.	
18	2.500	0.70	1.31	2.45	4.58	6.59	10.4	14.1	17 <mark>7</mark>	19.5	21.2	22.9	19.7	16.1	13.	
19	2.688	0.75	1.39	2.60	4.85	6.99	11.1	15.0	188/	20.6	22.5	24.3	21.4	17.5	14.0	
20	2.813	0.79	1.47	2.75	5.13	7.38	11.7	15.8	19 3	21.8	23.8	25.7	23.1	18.9	15.	
(21)	3.063	0.83	1.55	2.00	5.40	7.70	12.3	10.7	(20.9)	23.0	25.1	27.1	24.8	20.3	17.	
22	3.250	0.87	1.63	3.05	5.68	8.19	13.0	17.5	7.2.0	24.2	26.4	28.5	26.6	21.8	18.3	
23	3.438	0.92	1.71	3.19	5.96	8.59	13.6	18.4	23.1	25.4	27.7	29.9	28.4	23.3	19.	
24	3.625	0.96	1.79	3.35	6.24	8.99	14.2	19.7	24.2	26.6	29.0	31.3	30.3	24.8	20.8	
25	3.750	1.00	1.87	3.50	6.52	9.40	14.9	29.1	25.3	27.8	30.3	32.7	32.2	26.4	22.	
28	4.188	1.13	2.12	3.95	7.37	10.6	16.8	22.8	28.5	31.4	34.2	37.0	38.2	31.3	26.2	
30	4.500	1.22	2.28	4.26	7.94	11.4	18.1	24.5	30.8	33.8	36.8	39.8	42.4	34.7	29.	
32	4.750	1.31	2.45	4.56	8.52	12.3	19/4	26.3	33.0	36.3	39.5	42.7	46.7	38.2	32.	
35	5.500	1.44	2.69	5.03	9.38	13.5	21.4	29.0	36.3	39.9	43.5	47.1	53.4	43.7	36.	
40	6.250	1.67	3.11	5.81	10.8	15.6	24.7	33.5	42.0	46.1	50.3	54.4	62.5	53.4	44.	
Lubricatio	n tyne =		A .		-	В	5								(
Lubiloatio	ii type =	ı '	•		,	ت			I						,	

Number of	Maximum_							ı	Horse	power	for sl	of small sprocket								
teeth, in small	bore									10 4 11.4 12.5 11.9 9.4 7.70 6.45 11 4 12.6 13.7 13.5 10.7 8.77 7.35 12 5 13.7 14.9 15.2 12.1 9.89 8.29 13 5 14.8 16.2 17.0 13.5 11.1 9.26 14 6 16.0 17.4 18.8 15.0 12.3 10.3 15.6 17.1 18.7 20.2 16.5 13.5 11.3 16.7 18.3 19.9 21.6 18.1 14.8 12.4 17.7 19.5 21.2 22.9 19.7 16.1 13.5 18.8 20.6 22.5 24.3 21.4 17.5 14.6 19.8 21.8 23.8 25.7 23.1 18.9 15.8 20.9 23.0 25.1 27.1 24.8 20.3 17.0 22.0 24.2 26.4 28.5 26.6 21.8 18.2 23.1 25.4 27.7 29.9 28.4 23.3 <th></th>										
sprocket	inches	25	50	100	200	300	500	700	900	1000	1100	1200	1400	1600	1800					
11	1.250	0.41	0.77	1.44	2.69	3.87	6.13	8.30	104	11.4	12.5	11.9	9.4	7.70	6.45					
12	1.344	0.45	0.85	1.58	2.95	4.25	6.74	9.12	11 4	12.6	13.7	13.5	10.7	8.77	7.35					
13	1.500	0.50	0.92	1.73	3.22	4.64	7.34	9.94	12 5	13.7	14.9	15.2	12.1	9.89	8.29					
14	1.750	0.54	1.00	1.87	3.49	5.02	7.96	10.8	13 5	14.8	16.2	17.0	13.5	11.1	9.26					
15	1.938	0.58	1.08	2.01	3.76	5.41	8.57	11.6	14	16.0	17.4	18.8	15.0	12.3	10.3					
16	2.125	0.62	1.16	2.16	4.03	5.80	9.19	12.4	15.6	17.1	18.7	20.2	16.5	13.5	11.3					
(17)	2.313	0.00	1.24	2.01	4.00	0.20	0.81	40.9	(16.7)	18.3	19.9	21.6	18.1	14.8	12.4					
18	2.500	0.70	1.31	2.45	4.58	6.59	10.4	14.1	17.7	19.5	21.2	22.9	19.7	16.1	13.5					
19	2.688	0.75	1.39	2.60	4.85	6.99	11.1	15.0	18.8	20.6	22.5	24.3	21.4	17.5	14.6					
20	2.813	0.79	1.47	2.75	5.13	7.38	11.7	15.8	19.8	21.8	23.8	25.7	23.1	18.9	15.8					
21	3.063	0.83	1.55	2.90	5.40	7.78	12.3	16.7	20.9	23.0	25.1	27.1	24.8	20.3	17.0					
22	3.250	0.87	1.63	3.05	5.68	8.19	13.0	17.5	22.0	24.2	26.4	28.5	26.6	21.8	18.2					
23	3.438	0.92	1.71	3.19	5.96	8.59	13.6	18.4	23.1	25.4	27.7	29.9	28.4	23.3	19.5					
24	3.625	0.96	1.79	3.35	6.24	8.99	14.2	19.3	24.2	26.6	29.0	31.3	30.3	24.8	20.8					
25	3.750	1.00	1.87	3.50	6.52	9.40	14.9	20.1	25.3	27.8	30.3	32.7	32.2	26.4	22.1					
28	4.188	1.13	2.12	3.95	7.37	10.6	16.8	22.8	28.5	31.4	34.2	37.0	38.2	31.3	26.2					
30	4.500	1.22	2.28	4.26	7.94	11.4	18.1	24.5	30.8	33.8	36.8	39.8	42.4	34.7	29.1					
32	4.750	1.31	2.45	4.56	8.52	12.3	19.4	26.3	33.0	36.3	39.5	42.7	46.7	38.2	32.0					
35	5.500	1.44	2.69	5.03	9.38	13.5	21.4	29.0	36.3	39.9	43.5	47.1	53.4	43.7	36.6					
40	6.250	1.67	3.11	5.81	10.8	15.6	24.7	33.5	42.0	46.1	50.3	54.4	62.5	53.4	44.7					
Lubrication type ■			A		(В	5								С					

Ratings

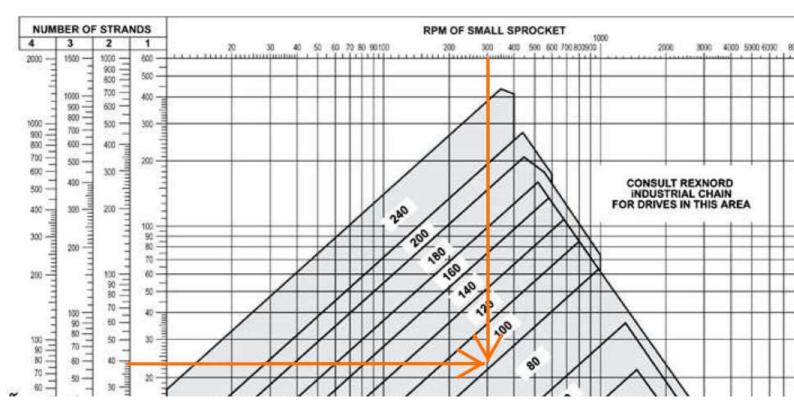
Number of	Maximum							F	lorse	power	for sl	ngle s	trand	chaln		
teeth, in small	bore									RPN	A of sn	nall spr	ocket			
sprocket	inches	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	20
(11)	1 625	0.07	1.80	3 36	6.28	0.04	11.7	1/1/3	10.1	23.0	19.6	14.9	11.8	9.69	8.12	6.
12	1.750	1.06	1.98	3.69	6.89	9.93	12.9	15.7	21.3	76.2	22.3	17.0	13.5	11.0	9.25	7.
13	2.000	1.16	2.16	4.03	7.52	10.8	14.0	17.1	23.2	29.1	25.2	19.2	15.2	12.5	10.4	8.
14	2.250	1.25	2.34	4.36	8.14	11.7	15.2	18.6	25.1	31.5	28.2	21.4	17.0	13.9	11.7	9.
15	2.563	1.35	2.52	4.70	8.77	12.6	16.4	20.0	27/1	34.0	31.2	23.8	18.9	15.4	12.9	11
16	2.875	1.45	2.70	5.04	9.41	13.5	17.6	21.5	29.0	36.4	34.4	26.2	20.8	17.0	14.2	12
17	3.125	1.55	2.88	5.38	10.0	14.5	18.7	22.9	31.0	38.9	37.7	28.7	22.7	18.6	15.6	13
18	3.375	1.64	3.07	5.72	10.7	15.4	19.9	24.4	33.0	41.4	41.1	31.2	24.8	20.3	17.0	14
19	3.688	1.74	3.25	6.07	11.3	16.3	21.1	25,5	35.0	43.8	44.5	33.9	26.9	22.0	18.4	15
20	3.813	1.84	3.44	6.41	12.0	17.2	22.3	27.3	37.0	46.3	48.1	36.6	29.0	23.8	19.9	17
21	4.125	1.94	3.62	6.76	12.6	18.2	23.5	28.8	39.0	48.9	51.7	39.4	31.2	25.6	21.4	18
22	4.438	2.04	3.81	7.11	13.3	19.1	24.8	30.3	41.0	51.4	55.5	42.2	33.5	27.4	23.0	19
23	4.625	2.14	4.00	7.46	13.9	20.1	26.0	31.8	43.0	53.9	59.3	45.1	35.8	29.3	24.6	21
24	4.688	2.24	4.19	7.81	14.6	21.0	27/2	33.2	45.0	56.4	62.0	48.1	38.2	31.2	26.2	22
25	4.750	2.34	4.37	8.16	15.2	21.9	28.4	34.7	47.0	59.0	64.8	51.1	40.6	33.2	27.8	23
28	5.375	2.65	4.94	9.23	17.2	24.8	32.1	39.3	53.2	66.7	73.3	60.6	48.1	39.4	33.0	28
30	5.750	2.85	5.33	9.94	18.5	26.7	34.6	42.3	57.3	71.8	78.9	67.2	53.3	43.6	36.6	31
32	6.313	3.06	5.71	10.7	19.9	28/6	37.1	45.4	61.4	77.0	84.6	74.0	58.7	48.1	40.3	34
35	7.750	3.37	6.29	11.7	21.9	31.6	40.9	50.0	67.6	84.8	93.3	84.7	67.2	55.0	46.1	39
40	9.375	3.89	7.27	13.6	25.3	26.4	47.2	57.7	78.1	99.01	108	103	82.1	67.2	56.3	48
Lubricatio	Α			В									С			



Ratings

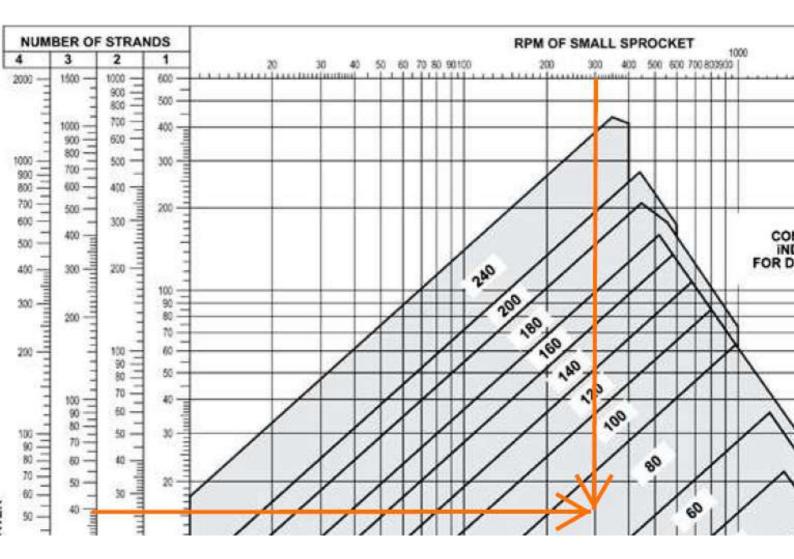
Number of	Maximum							Ī	Horse	power	for sl	ngle s	strand	cha
teeth, in small	bore									RPI	/ of sn	nall spr	rocket	
sprocket	inches	25	50	100	200	300	500	700	900	1000	1100	1200	1400	160
11	1.250	0.41	0.77	144	2.69	3.87	6.13	8.30	10.4	11.4	12.5	11.9	9.4	7.7
12	1.344	0.45	0.85	1 58	2.95	4.25	6.74	9.12	11.4	12.6	13.7	13.5	10.7	8.7
13	1.500	0.50	0.92	1 73	3.22	4.64	7.34	9.94	12.5	13.7	14.9	15.2	12.1	9.8
14	1.750	0.54	1.00	1.87	3.49	5.02	7.96	10.8	13.5	14.8	16.2	17.0	13.5	11.
15	1.938	0.58	1.08	2.01	3.76	5.41	8.57	11.6	14.5	16.0	17.4	18.8	15.0	12.
16	2.125	0.62	1.16	2.16	4.03	5.80	9.19	12.4	15.6	17.1	18.7	20.2	16.5	13.
17	2.313	0.66	1.24	2.3/	4.30	6.20	9.81	13.3	16.7	18.3	19.9	21.6	18.1	14.
18	2.500	0.70	1.31	2.45	4.58	6.59	10.4	14.1	17.7	19.5	21.2	22.9	19.7	16.
(19)	2.000	0.75	1,30	(2.60)	4.85	6.99	11.1	15.0	18.8	20.6	22.5	24.3	21.4	17.
20	2.813	0.79	1.47	2.75	5.13	7.38	11.7	15.8	19.8	21.8	23.8	25.7	23.1	18.
21	3.063	0.83	1.55	2.90	5.40	7.78	12.3	16.7	20.9	23.0	25.1	27.1	24.8	20.
22	3.250	0.87	1.63	3.05	5.68	8.19	13.0	17.5	22.0	24.2	26.4	28.5	26.6	21.
23	3.438	0.92	1.71	3.19	5.96	8.59	13.6	18.4	23.1	25.4	27.7	29.9	28.4	23.
24	3.625	0.96	1.79	3.35	6.24	8.99	14.2	19.3	24.2	26.6	29.0	31.3	30.3	24.
25	3.750	1.00	1.87	3.50	6.52	9.40	14.9	20.1	25.3	27.8	30.3	32.7	32.2	26.4
28	4.188	1.13	2.1	3.95	7.37	10.6	16.8	22.8	28.5	31.4	34.2	37.0	38.2	31.
30	4.500	1.22	2.28	4.26	7.94	11.4	18.1	24.5	30.8	33.8	36.8	39.8	42.4	34.
32	4.750	1.31	2 45	4.56	8.52	12.3	19.4	26.3	33.0	36.3	39.5	42.7	46.7	38.
35	5.500	1.44	2.69	5.03	9.38	13.5	21.4	29.0	36.3	39.9	43.5	47.1	53.4	43.
40	6.250	1.67	7.11	5.81	10.8	15.6	24.7	33.5	42.0	46.1	50.3	54.4	62.5	53.
Lubricatio	on type ■	C	A			В		2	1					

		Service factors
Driven equipment		Input power
Differ equipment	Internal combustion engine with hydraulic drive	Electric motor or turbine
Agitators, liquid stock	1.0	10
Beaters	1.2	1 3
Blowers, centrifugal	1.0	10
Boat propellers	1.4	1 5
Compressors		
centrifugal	1.2	1 3
reciprocating, 3 or more cylinders	1.2	1 3
reciprocating, singular, 2 cylinders	1.4	1 5
Conveyors	, - 1 Sp 2 %	
uniformly loaded or fed	1.0	10
not uniformly loaded or fed	1.2	1 3
reciprocating	1.4	1 5
Cookers, cereal	1.0	1 0
Crushers	1.4	1 5
Elevators, bucket		
uniformly loaded or fed	1.0	1 0
not uniformly loaded or fed	1.2	13
Fans, centrifugal	1.0	1 0
Feeders		\ /
rotary table	1.0	
apron, belt, screw, rotary vane	1.2	1.3
uthus_lateu	4.4	4.5



Ratings

Number of	Maximum							1	Horse	power	for sl	ngle s	trand	chain	A
teeth, in small	bore					RPM of small sprocket	ocket								
sprocket	inches	25	50	100	200	300	400	500	600	700	800	900	1000	1200	1400
11	2.000	1.85	3.45	6.44	12.0	17.3	22.4	27.4	32.3	37.1	32.8	27.5	23.4	17.8	14.2
12	2.250	2.03	3.79	7.08	13.2	19.0	24.6	30.1	35.5	40.8	37.3	31.3	26.7	20.3	16.1
13	2.500	2.22	4.13	7.72	14.4	20.7	26.9	32.8	38.7	44.5	42.1	35.3	30.1	22.9	18.2
14	2.813	2.40	4.48	8.36	15.6	22.5	29.1	35.6	41.9	48.2	47.0	39.4	33.7	25.6	20.3
15	8.250	2.53	4.83	9.01	10.0	24.2	31.4	38.3	45.2	51.9	52.2	43.7	37.3	28.4	22.5
16	3.500	2.77	5.17	9.66	18.0	26.0	33.6	41.1	48.4	55.6	57.5	48.2	41.1	31.3	24.8
17	3.813	2.96	5.52	10.3	19.2	27.7	35.9	43.9	51.7	59.4	63.0	52.8	45.0	34.3	27.2
18	4.188	3.15	5.88	11.0	20.5	29.5	38.2	46.7	55.0	62.3	68.6	57.5	49.1	37.3	29.6
19	4.563	3.34	6.23	11.6	21.7	31.2	40.5	49.5	58.3	67.0	74.4	62.3	53.2	40.5	32.1
20	4.875	3.53	6.58	12.3	22.9	33.0	42.8	52.3	61.6	70.8	79.8	67.3	57.5	43.7	34.7
21	5.250	3.72	6.94	13.0	24.2	34.8	45.1	55.1	65.0	74.6	84.2	72.4	61.8	47.0	37.3
22	5.625	3.91	7.30	13.6	25.4	36.6	47.4	58.0	68.3	78.5	88.5	77.7	66.3	50.4	40.0
23	5.813	4.10	7.66	14.3	26.7	38.4	49.8	60.8	71.7	82.3	92.8	83.0	70.9	53.9	42.8
24	6.000	4.30	8.02	15.0	27.9	40.2	52.1	63.7	75.0	86.2	97.2	88.5	75.6	57.5	45.6
25	6.125	4.49	8.38	15.6	29 2	42.0	54.4	66.6	78.4	90.1	102	94.1	80.3	61.1	48.5
28	7.000	5.07	9.47	17.7	33.0	47.5	61.5	75.2	88.6	102	115	112	95.2	72.4	57.5
30	7.625	5.47	10.2	19.0	35.5	51.2	66.3	81.0	95.5	110	124	124	106	80.3	63.7
32	8.250	5.86	10.9	20.4	38.1	54.91	71.1	86.9	102	118	133	136	116	88.5	70.2
35	9.125	6.46	12.0	22.5	12.0	60.4	78.3	95.7	113	130	146	156	133	101	80.3
40	200	7.46	13.9	26.0	43.5	69.8	90.4	111	130	150	169	188	163	124	98.1
Lubrication	on type 🔳	Α			В									С	



Number of	Maximum							1	Horse	power	23.0 19.6 14.9 11.8 9.69 8.1 26.2 22.3 17.0 13.5 11.0 9.2 29.1 25.2 19.2 15.2 12.5 10 31.5 28.2 21.4 17.0 13.9 11						
teeth, in small	bore							RPM of small sprocket									
sprocket	inches	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	18		
11	1.625	0.97	1.80	3.36	6.28	9.04	11.7	14.3	19.4	23.0	19.6	14.9	11.8	9.69	8.1		
12	1.750	1.06	1.98	3.69	6.89	9.93	12.9	15.7	21.3	26.2	22.3	17.0	13.5	11.0	9.2		
13	2.000	1.16	2.16	4.03	7.52	10.8	14.0	17.1	23.2	29.1	25.2	19.2	15.2	12.5	10		
14	2.250	1.25	2.34	4.36	8.14	11.7	15.2	18.6	25.1	31.5	28.2	21.4	17.0	13.9	11		
15	2.563	1.35	2.52	4.70	8.77	12.6	16.4	20.0	27.1	34.0	31.2	23.8	18.9	15.4	12		
16	2.875	1.45	2.70	5.04	9.41	13.5	17.6	21.5	29.0	36.4	34.4	26.2	20.8	17.0	14		
17	3.125	1.55	2.88	5.38	10.0	14.5/	18.7	22.9	31.0	38.9	37.7	28.7	22.7	18.6	15		
18	3.375	1.64	3.07	5.72	10.7	1 4	19.9	24.4	33.0	41.4	41.1	31.2	24.8	20.3	17		
(19)	3.088	1.74	3.25	C.07	11.3	(16.3)	21.1	25.8	35.0	43.8	44.5	33.9	26.9	22.0	18		
20	3.813	1.84	3.44	6.41	12.0	1712	22.3	27.3	37.0	46.3	48.1	36.6	29.0	23.8	19		
21	4.125	1.94	3.62	6.76	12.6	18.2	23.5	28.8	39.0	48.9	51.7	39.4	31.2	25.6	21		
22	4.438	2.04	3.81	7.11	13.3	19.1	24.8	30.3	41.0	51.4	55.5	42.2	33.5	27.4	23		
23	4.625	2.14	4.00	7.46	13.9	20.1	26.0	31.8	43.0	53.9	59.3	45.1	35.8	29.3	24		
24	4.688	2.24	4.19	7.81	14.6	21.0	27.2	33.2	45.0	56.4	62.0	48.1	38.2	31.2	26		
25	4.750	2.34	4.37	8.16	15.2	21.9	28.4	34.7	47.0	59.0	64.8	51.1	40.6	33.2	27		
28	5.375	2.65	4.94	9.23	17.2	14.8	32.1	39.3	53.2	66.7	73.3	60.6	48.1	39.4	33		
30	5.750	2.85	5.33	9.94	18.5	26.7	34.6	42.3	57.3	71.8	78.9	67.2	53.3	43.6	36		
32	6.313	3.06	5.71	10.7	19.9	28.6	37.1	45.4	61.4	77.0	84.6	74.0	58.7	48.1	40		
35	7.750	3.37	6.29	11.7	21.9	37.6	40.9	50.0	67.6	84.8	93.3	84.7	67.2	55.0	46		
40	9.375	3.89	7.27	13.6	25.3	36.4	47.2	57.7	78.1	99.01	108	103	82.1	67.2	56		
Lubricatio	on type 		Α			B									С		