



MINIMUM SHEAVE-AND DRUM-GROOVE DIMENSIONS*

Nominal Rope Diameter		Groove Radius			
		New		Worn	
1 inches	2 mm	3 inches	4 mm	5 inches	6 mm
1/4	6.4	.135	3.43	.129	3.28
5/16	8.0	.167	4.24	.160	4.06
3/8	9.5	.201	5.11	.190	4.83
7/16	11	.234	5.94	.220	5.59
1/2	13	.271	6.88	.256	6.50
9/16	14.5	.303	7.70	.288	7.32
5/8	16	.334	8.48	.320	8.13
3/4	19	.401	10.19	.380	9.65
7/8	22	.468	11.89	.440	11.18
1	26	.543	13.79	.513	13.03
1 1/8	29	.605	15.37	.577	14.66
1 1/4	32	.669	16.99	.639	16.23
1 3/8	35	.736	18.69	.699	17.75
1 1/2	38	.803	20.40	.759	19.28
1 5/8	42	.876	22.25	.833	21.16
1 3/4	45	.939	23.85	.897	22.78
1 7/8	48	1.003	25.48	.959	24.36
2	52	1.085	27.56	1.025	26.04
2 1/8	54	1.137	28.88	1.079	27.41
2 1/4	58	1.210	30.73	1.153	29.29
2 3/8	60	1.271	32.28	1.199	30.45
2 1/2	64	1.338	33.99	1.279	32.49
2 5/8	67	1.404	35.66	1.339	34.01
2 3/4	71	1.481	37.62	1.409	35.79
2 7/8	74	1.544	39.22	1.473	37.41
3	77	1.607	40.82	1.538	39.07
3 1/8	80	1.664	42.27	1.598	40.59
3 1/4	83	1.731	43.97	1.658	42.11
3 3/8	87	1.807	45.90	1.730	43.94
3 1/2	90	1.869	47.47	1.794	45.57
3 3/4	96	1.997	50.72	1.918	48.72
4	103	2.139	54.33	2.050	52.07
4 1/4	109	2.264	57.51	2.178	55.32
4 1/2	115	2.396	60.86	2.298	58.37
4 3/4	122	2.534	64.36	2.434	61.82
5	128	2.663	67.64	2.557	64.95
5 1/4	135	2.804	71.22	2.691	68.35
5 1/2	141	2.929	74.40	2.817	71.55
5 3/4	148	3.074	78.08	2.947	74.85
6	154	3.198	81.23	3.075	78.11

* Values given are applicable to grooves in sheaves and drums; they are not generally suitable for pitch design since this may involve other factors.

Further, the dimensions do not apply to traction-type elevators; in this circumstance, drum-and sheave-groove tolerances should conform to the elevator manufacturer's specifications.

Modern drum design embraces extensive considerations beyond the scope of this publication. It should also be noted that drum grooves are now produced with a number of oversize dimensions and pitches applicable to certain service requirements.