

# Wire Rope Specifications

Liftcrane

Boom No. 180 With Open Throat Top

Wire Rope Lengths						
Boom or Boom and Jib Length		Whip Line Rear Drum		Hoist Line Front Drum		Maximum Required Parts of Line
		1 Part				
Ft.	Meters	Ft.	Meters	Ft.	Meters	
40	12.2	105	32	500	152	10
50	15.2	125	38	600	183	10
60	18.3	145	44	700	213	10
70	21.3	165	50	700	213	8
80	24.4	185	56	700	213	7
90	27.4	205	62	700	213	6
100	30.5	225	69	725	221	6
110	33.5	245	75	725	221	5
120	36.6	265	81	725	221	4
130	39.6	285	87	725	221	4
140	42.7	305	93	725	221	4
150	45.7	325	99	725	221	3
160	48.8	345	105	725	221	3
170	51.8	365	111	725	221	3
180	54.9	385	117	725	221	2
190	57.9	405	123	725	221	2
200	61.0	425	130	725	221	2
210	64.0	445	136			
220	67.1	465	142			
230	70.1	485	148			
240	73.2	505	154			
250	76.2	525	160			

**Note:** Hoist line and whip line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required.

Hoist Reeving for Main Load Block					
No. Parts of Line	1	2	3	4	5
Maximum Load - Lbs.	17,000	34,000	51,000	68,000	85,000
Maximum Load - kg	7 710	15 420	23 130	30 840	38 560
No. Parts of Line	6	7	8	9	10
Maximum Load - Lbs.	102,000	119,000	136,000	153,000	158,800
Maximum Load - kg	46 270	53 980	61 690	69 400	72 000

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Wire Rope Specifications	
<u>3.5:1 Safety Factor</u>	
Hoist Line:	7/8 in. (22 mm) - 6 x 25 Filler Wire, Extra Improved Plow Steel Regular Lay, IWRC Minimum Breaking Strength = 79,600 Lbs. (36 110 kg) Approximate Weight = 1.42 Lbs. Per Ft. (2.11 kg/m) MCC Part No. 719111
Whip Line:	7/8 in. (22 mm) - 6 x 25 Filler Wire, Extra Improved Plow Steel Regular Lay, IWRC Minimum Breaking Strength = 79,600 Lbs. (36 110 kg) Maximum Load = 18,700 Lbs. (8 480 kg) Per Line Approximate Weight = 1.42 Lbs. Per Ft. (2.11 kg/m) MCC Part No. 719111
<u>Rotation Resistant Wire Rope - 5:1 Safety Factor</u>	
Hoist Line:	7/8 in. (22 mm) - 2 160 N/mm <sup>2</sup> (MCC Part No. 719414) Minimum Breaking Strength = 106,120 Lbs. (48 140 kg) Approximate Weight = 1.65 Lbs. Per Ft. (2.46 kg/m)
Whip Line:	7/8 in. (22 mm) - 2 160 N/mm <sup>2</sup> (MCC Part No. 719414) Minimum Breaking Strength = 106,120 Lbs. (48 140 kg) Maximum Load = 18,700 Lbs. (8 480 kg) Per Line Approximate Weight = 1.65 Lbs. Per Ft. (2.46 kg/m)

Maximum Spooling Capacities	
Front Drum:	7/8 in. (22 mm) Wire Rope - 6 Layers - 819 Ft. (250m)
(Hoist Line)	6 Layers - 870 Ft. (265m) with 20-7/16 in. (519 mm) Dia. Lagging
Rear Drum:	7/8 in. (22 mm) Wire Rope - 6 Layers - 819 Ft. (250m)
(Whip Line)	6 Layers - 870 Ft. (265m) with 20-7/16 in. (519 mm) Dia. Lagging
16 Ft. (5m) is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.	

Refer to Drum and Lagging chart **No. 9198-A**.