

Wire Rope Specifications

Liftcrane - Boom No. 78

777 SERIES 1

777 SERIES 2

European Standards

Wire Rope Lengths								
Boom or Boom and Jib Length		Whip Line Rear or Auxiliary Drum				Hoist Line Front Drum		Maximum Required Parts of Line
		1 Part		2 Part				
Ft.	Meters	Ft	Meters	Ft.	Meters	Ft.	Meters	
60	18.3	160	49	230	70	875	267	12
70	21.3	180	55	260	79	925	282	11
80	24.4	200	61	290	88	975	297	10
90	27.4	220	67	320	98	975	297	9
100	30.5	240	73	350	107	975	297	8
110	33.5	260	79	380	116	1075	328	8
120	36.6	280	85	410	125	1075	328	7
130	39.6	300	91	440	134	1075	328	6
140	42.7	320	98	470	143	1075	328	6
150	45.7	340	104	500	152	1125	343	6
160	48.8	360	110	530	162	1125	343	5
170	51.8	380	116	560	171	1125	343	5
180	54.9	400	122	590	180	1150	351	5
190	57.9	420	128	620	189	1150	351	4
200	61.0	440	134	650	198	1150	351	4
210	64.0	460	140	680	207	1150	351	4
220	67.1	480	146	710	216	1150	351	4
230	70.1	500	152	740	226	1200	366	4
240	73.2	520	158	770	235	1200	366	3
250	76.2	540	165	800	244	1200	366	3
260	79.2	560	171	830	253	1200	366	3
270	82.3	580	177	860	262			
280	85.3	600	183					
290	88.4	620	189					

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	6
Maximum Load Lbs.	29,500	59,000	88,500	118,000	147,500	177,000
Maximum Load kg	13 380	26 760	40 140	53 520	66 900	80 290
No. Parts of Line	7	8	9	10	11	12
Maximum Load Lbs.	206,500	236,000	265,500	295,000	324,500	352,800
Maximum Load kg	93 670	107 050	120 430	133 810	147 190	160 000

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Maximum Spooling Capacities	
Front Drum: (Hoist Line)	26 mm Wire Rope - 6 Layers - 1,074 Ft. (327m) 5 Layers - 918 Ft. (280m) with 21-1/4 in. (540 mm) Dia. Lagging
Rear Drum: (Whip Line)	26 mm Wire Rope - 6 Layers - 1,074 Ft. (327m) 5 Layers - 918 Ft. (280m) with 21-1/4 in. (540 mm) Dia. Lagging
Auxiliary Drum: (Whip Line)	26 mm Wire Rope - 6 Layers - 1,323 Ft. (403m) 6 Layers - 1,415 Ft. (431m) with 21-1/4 in. (540 mm) Dia. Lagging
17 Ft. (5m) is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.	

Refer to drum and lagging chart **No. 6123-A**.

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<u>Rotation Resistant Wire Rope -4.5 : 1 Safety Factor</u>		
Hoist Line:	26 mm -	2 160 N/mm ² Wire Rope (MCC Part No. 719379) Minimum Breaking Strength 161,070 Lbs. (73 060 kg) Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
	Or	
	26 mm -	Wire Rope With Pad Eye (MCC Part No. 719432) Right Hand Lang Lay Minimum Breaking Strength = 156,400 Lbs. (695.7 kN) Approx. Weight = 2.39 Lbs Per Ft. (3.56 kg/m) No Load Dia. = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm)
Whip Line:	26 mm -	2 160 N/mm ² Wire Rope (MCC Part No. 719379) Minimum Breaking Strength 161,070 Lbs. (73 060 kg) Maximum Load = 29,500 Lbs. (13 380 kg) Per Line. Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
	Or	
	26 mm -	Wire Rope With Pad Eye (MCC Part No. 719432) Right Hand Lang Lay Minimum Breaking Strength = 156,400 Lbs. (695.7 kN) Approx. Weight = 2.39 Lbs Per Ft. (3.56 kg/m) No Load Dia. = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm)
Auxiliary Line	26 mm -	1 960 N/mm ² Wire Rope (MCC Part No. 719378) Minimum Breaking Strength 146,200 Lbs. (650.6 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line. Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
	Or	
	26 mm -	Wire Rope With Pad Eye (MCC Part No. 719432) Right Hand Lang Lay Minimum Breaking Strength Required = 100,000 Lbs. (445.0 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approx. Weight = 2.39 Lbs. Per Ft. (3.56 kg/m) No Load Dia. (required for lagging) = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm) Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m)

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<u>Not Non-twisting Wire Rope - 3.55 : 1 Safety Factor</u>		
Hoist Line:	26 mm -	6 X 25 Filler Wire, Extra Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719383) Minimum Breaking Strength 119,400 Lbs. (54 160 kg) Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m)
Whip Line:	26 mm -	6 X 25 Filler Wire, Extra Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC part No. 719383) Minimum Breaking Strength 119,400 Lbs. (54 160 kg) Maximum Load = 29,500 Lbs. (13 380 kg) per line Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m)
Auxiliary Line:	26 mm -	6 X 25 Filler Wire, Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength 108,600 Lbs. (483.1 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m)
Note: Block Spin May Occur With 6 X 25 Construction Wire Rope Under Certain Operating Conditions.		