

Wire Rope Specifications

Liftcrane - Boom No. 78T With Heavy Lift Top
Luffing Jib No. 139 Attached

Wire Rope Lengths - Front Drum				
Boom Length		Hoist Line		Maximum Required Parts of Line
Ft.	Meters	Ft.	Meters	
60	18.3	850	259	11
70	21.3	875	267	10
80	24.4	900	274	9
90	27.4	1000	305	9
100	30.5	1000	305	8
110	33.5	1000	305	7
120	36.6	1000	305	6
130	39.6	1000	305	6
140	42.7	1000	305	5
150	45.7	1000	305	5
160	48.8	1025	312	5

Note: Hoist line length 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 - Front Drum						
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	
Maximum Load - Lbs.	206,500	236,000	265,500	295,000	322,700	
Maximum Load - kg	93 670	107 050	120 430	133 810	146 300	

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Wire Rope Lengths - Auxiliary Drum				
Boom Length		Hoist Line		Maximum Required Parts of Line
Ft.	Meters	Ft.	Meters	
60	18.3	900	274	12
70	21.3	1025	312	12
80	24.4	1150	351	12
90	27.4	1275	389	12
100	30.5	1300	396	11
110	33.5	1300	396	10
120	36.6	1300	396	9
130	39.6	1300	396	8
140	42.7	1300	396	7
150	45.7	1300	396	7
160	48.8	1350	411	7

Note: Hoist line length 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.

Capacity chart restrictions will occur when auxiliary drum is used. Maximum capacity is 240,000 Lbs. (108 860 kg) with 12 parts line.

Hoist Reeving for Main Load Block - Auxiliary Drum						
No. Parts of Line	1	2	3	4	5	6
Maximum Load Lbs.	20,000	40,000	60,000	80,000	100,000	120,000
Maximum Load kg	9 070	18 140	27 220	36 290	45 360	54 430
No. Parts of Line	7	8	9	10	11	12
Maximum Load Lbs.	140,000	160,000	180,000	200,000	220,000	240,000
Maximum Load kg	63 500	72 570	81 650	90 720	99 790	108 860

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Rotation Resistant Wire Rope - 5:1 Safety Factor

Hoist Line: 1 in. - 2 160 N/mm² Wire Rope (MCC Part No. 719392)
Front Drum Minimum Breaking Strength = 153,800 Lbs. (684.2 kN)
Approx. Weight = 2.03 Lbs Per Ft. (3.02 kg/m)

Hoist Line: 1 in. - 1 960 N/mm² Wire Rope (MCC Part No. 719393)
Auxiliary Drum Minimum Breaking Strength = 139,600 Lbs. (620.9 kN)
Maximum Load = 20,000 Lbs. (9 070 kg) Per Line
Approx. Weight = 2.03 Lbs. Per Ft. (3.02 kg/m)

Or

26 mm - 1 960 N/mm² 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)

Optional Wire Rope - 3.5 : 1 Safety Factor

Hoist Line: 1 in. - 6 X 25 Filler Wire, Extra Improved Plow Steel,
Front Drum Right Regular Lay, IWRC (MCC Part No. 719060)
Minimum Breaking Strength 103,400 Lbs. (460 kN)
Approx. Weight = 1.85 Lbs. Per Ft. (2.75 kg/m)

Hoist Line: 1 in. - 6 X 25 Filler Wire, Improved Plow Steel,
Auxiliary Drum Right Regular Lay, IWRC (MCC Part No. 719073)
Minimum Breaking Strength = 89,800 Lbs. (40 730 kg)
Maximum Load = 20,000 Lbs. (9 070 kg) Per Line
Approx. Weight = 1.85 Lbs. Per Ft. (2.75 kg/m)

Or

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.

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Maximum Spooling Capacities	
Front Drum: (Hoist Line)	1 in. Wire Rope - 5 Layers - 928 Ft. (283m)
Auxiliary Drum: (Hoist 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 1 in. Wire Rope - 6 Layers - 1,335 Ft. (407m) 6 Layers - 1,428 Ft. (435m) 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.	

Note: When optional laggings are used, the recommended lagging for specific wire rope Dia. must be used.

Refer to drum and lagging chart **No. 8093-A**.