

Wire Rope Specifications

Liftcrane - Boom No. 78T with Long Reach Top

Wire Rope Lengths												
Boom or Boom and Jib Length		Whip Line				Front or Rear Drum			Auxiliary Drum			
		Front, Rear or Auxiliary Drum				Hoist Line		Maximum Required Parts of Line	Auxiliary Hoist Line		Maximum Required Parts of Line	
		1 Part		2 Part								
Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters		Ft.	Meters		
138	42.1					900	274	5	1050	320	6	
148	45.1					950	290	5	1100	335	6	
158	48.2					1025	312	5	1175	358	6	
168	51.2	370	113	550	168	1075	328	5	1250	381	6	
178	54.3	390	119	580	177	1150	351	5	1325	404	6	
188	57.3	410	125	610	186	1200	366	5	1400	427	6	
198	60.4	430	131	640	195	1200	366	4	1450	442	6	
208	63.4	450	137	670	204	1200	366	4	1525	465	6	
218	66.4	470	143	700	213	1200	366	4	1600	488	6	
228	69.5	490	149	730	223	1200	366	4	1600	488	5	
238	72.5	510	155	760	232	1200	366	3	1600	488	5	
248	75.6	530	162	790	241	1200	366	3	1600	488	4	
258	78.6	550	168	820	250	1200	366	3	1600	488	4	
268	81.7	570	174	850	259	1200	366	3	1600	488	4	
278	84.7	590	180	880	268	1200	366	2	1600	488	3	
288	87.8	610	186	910	277	1200	366	2	1600	488	3	
298	90.8	630	192	940	287	1200	366	2	1600	488	3	
308	93.9	650	198									
318	96.9	670	204									

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.

Capacity chart restrictions will occur when auxiliary drum is used. Maximum capacity is 120,000 Lbs. (54 430 kg) with 6 parts line.

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Hoist Reeving for Main Load Block - Front or Rear Drum					
No. Parts of Line	1	2	3	4	5
Maximum Load Lbs.	29,500	59,000	88,500	118,000	147,500
Maximum Load kg	13 380	26 760	40 140	53 520	66 900

Auxiliary 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

Maximum Spooling Capacities	
Front Drum: (Hoist or Whip Line)	1 in. Wire Rope - 5 Layers - 928 Ft. (283m)
Rear Drum (Hoist or Whip Line)	1 in. Wire Rope - 5 Layers - 928 Ft. (283m)
Auxiliary Drum: (Hoist or 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
	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**.

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<u>Rotation Resistant Wire Rope - 5:1 Safety Factor</u>		
Hoist Line:	1 in. -	2 160 N/mm ² Wire Rope (MCC Part No. 719392) Minimum Breaking Strength = 153,800 Lbs. (684.2 kN) Approx. Weight = 2.03 Lbs Per Ft. (3.02 kg/m)
Whip Line:	1 in. -	2 160 N/mm ² Wire Rope (MCC Part No. 719392) Minimum Breaking Strength = 153,800 Lbs. (684.2 kN) Maximum Load= 29,500 Lbs. (13 380 kg) Per Line Approx. Weight = 2.03 Lbs. Per Ft. (3.02 kg/m)
Auxiliary Line:	1 in. -	1 960 N/mm ² Wire Rope (MCC Part No. 719393) 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/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)

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<u>Optional Wire Rope - 3.5 : 1 Safety Factor</u>		
Hoist Line:	1 in.-	6 X 25 Filler Wire, Extra Improved Plow Steel, 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)
Whip Line:	1 in.-	6 X 25 Filler Wire, Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719060) Minimum Breaking Strength 103,400 Lbs. (460 kN) Maximum Load = 29,500 Lbs. (13 380 kg) Per Line Approx. Weight = 1.85 Lbs. Per. Ft. (2.75 kg/m)
Auxiliary Line:	1 in.-	6 X 25 Filler Wire, Improved Plow Steel, 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) 6 X 25 Filler Wire, Extra Improved Plow Steel,
Note: Block Spin May Occur With 6 X 25 Construction Wire Rope Under Certain Operating Conditions.		