



Wire Rope Specifications

999 SERIES 1, 2, 3

Liftcrane - Boom No. 82LR

Wire Rope Lengths								
Boom or Boom and Jib Length		Whip Line Front or Auxiliary Drum				Hoist Line Rear Drum		Maximum Required Parts of Line
		1 Part		2 Part				
Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters	
120	36.6	280	85	—	—	1300	396	9
130	39.6	300	91	—	—	1400	427	9
140	42.7	320	98	—	—	1500	457	9
150	45.7	340	104	500	152	1600	488	9
160	48.8	360	110	530	162	1600	488	8
170	51.8	380	116	560	171	1625	495	8
180	54.9	400	122	590	180	1625	495	7
190	57.9	420	128	620	189	1625	495	7
200	61.0	440	134	650	198	1625	495	6
210	64.0	460	140	680	207	1625	495	6
220	67.1	480	146	710	216	1625	495	6
230	70.1	500	152	740	226	1625	495	5
240	73.2	520	158	770	235	1625	495	5
250	76.2	540	165	800	244	1625	495	4
260	79.2	560	171	830	253	1625	495	4
270	82.3	580	177	860	262	1625	495	4
280	85.3	600	183	890	271	1625	495	3
290	88.4	620	189	920	280	1625	495	3
300	91.4	640	195	950	290	1625	495	3
310	94.5	660	201	980	299	1625	495	3
320	97.5	680	207	1010	308	1625	495	3
330	100.6	700	213	1040	317	1625	495	2
340	103.6	720	219	1070	326	1625	495	2
350	106.7	740	226	1100	335			
360	109.7	760	232	1130	344			
370	112.8	780	238					
380	115.8	800	244					

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.



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Hoist Reeving for Main Load Block									
No. Parts of Line	1	2	3	4	5	6	7	8	9
Maximum Load Lbs.	29,500	59,000	88,500	118,000	147,500	177,000	206,500	236,000	265,500
Maximum Load kg	13 380	26 760	40 140	53 520	66 900	80 290	93 670	107 050	120 400

Maximum Spooling Capacities	
Rear Drum: (Hoist Line)	26 mm Wire Rope - 7 Layers - 1,727 Ft. (526m)
Front Drum: (Whip Line)	26 mm Wire Rope - 7 Layers - 1,727 Ft. (526m)
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
	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. 8222-A**.



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Wire Rope Specifications

Rotation Resistant Wire Rope - 5:1 Safety Factor

Hoist Line: 26 mm - 2 160 N/mm² Wire Rope With Pad Eye (MCC Part No. 719430)
Right Hand Regular Lay
Minimum Breaking Strength = 161,200 Lbs. (717.0 kN)
Approx. Weight = 2.13 Lbs Per Ft. (3.17 kg/m)
No Load Dia. = 1.033 in. (26.24 mm) to 1.045 in. (26.54 mm)

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/mm² Wire Rope With Pad Eye (MCC Part No. 719430)
Right Hand Regular Lay
Minimum Breaking Strength Required = 147,500 Lbs. (656.1 kN)
Maximum Load = 29,500 Lbs. (13 380 kg) Per Line
Approx. Weight = 2.13 Lbs Per Ft. (3.17 kg/m)
No Load Dia. = 1.033 in. (26.24 mm) to 1.045 in. (26.54 mm)

Or

26 mm - Wire Rope With Pad Eye (MCC Part No. 719432)
Right Hand Lang Lay
Minimum Breaking Strength Required = 147,500 Lbs. (656.1 kN)
Maximum Load = 29,500 Lbs. (13 380 kg) Per Line
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)



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Wire Rope Specifications

Rotation Resistant Wire Rope - 5:1 Safety Factor

- Auxiliary Line: 26 mm - 1 960 N/mm² Wire Rope (MCC Part No. 719378)
Right Hand Regular Lay
Minimum Breaking Strength Required = 100,000 Lbs. (445.0 kN)
Maximum Load = 20,000 Lbs. (9 070 kg) Per Line
Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
No Load Dia. (required for lagging) = 1.033 in. (26.24 mm) to 1.045 in. (26.54 mm)
- 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)
- Or
- 1 in. - 1 960 N/mm² Wire Rope (MCC Part No. 719393)
Right Hand Regular Lay
Minimum Breaking Strength Required = 100,000 Lbs. (445.0 kN)
Maximum Load = 20,000 Lbs. (9 070 kg) Per Line
Approx. Weight = 2.03 Lbs. Per Ft. (3.02 kg/m)
No Load Dia. (required for lagging) = 1.012 in. (25.70 mm) to 1.028 in. (26.11 mm)
- Or
- 1 in. - Wire Rope (MCC Part No. 719436)
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 = 2.26 Lbs. Per Ft. (3.26 kg/m)
No Load Dia. (required for lagging) = 1.020 in. (25.91 mm) to 1.036 in. (26.31 mm)

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<u>Optional Wire Rope - 3.5 : 1 Safety Factor</u>	
Hoist Line:	26 mm - 6 X 25 Filler Wire, Extra Improved Plow Steel Right Hand Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength Required = 103,250 Lbs. (459.5 kN) Maximum Capacity With 16 Parts Hoist Line = 472,000 Lbs. (214 100 kg) Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m) No Load Dia. = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm)
Whip Line:	26 mm - 6 X 25 Filler Wire, Extra Improved Plow Steel Right Hand Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength Required = 103,250 Lbs. (459.5 kN) Maximum Load = 29,500 Lbs. (13 380 kg) Per Line Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m) No Load Dia. = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm)
Auxiliary Line:	26 mm - 6 X 25 Filler Wire, Extra Improved Plow Steel Right Hand Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength Required = 70,000 Lbs. (311.5 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approx. Weight = 1.94 Lbs. Per. Ft. (2.89 kg/m) No Load Dia. (required for lagging) = 1.034 in. (26.26 mm) to 1.054 in. (26.77 mm)
Or	
	1 in. - 6 X 25 Filler Wire, Improved Plow Steel Right Hand Regular Lay, IWRC (MCC Part No. 719433) Minimum Breaking Strength Required = 70,000 Lbs. (311.5 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approx. Weight = 1.85 Lbs. Per. Ft. (2.75 kg/m) No Load Dia. (required for lagging) = 1.020 in. (25.91 mm) to 1.038 in. (26.37 mm)

Note: Block spin may occur with 6 X 25 construction wire rope under certain operating conditions.