

Wire Rope Specifications

999 SERIES 3

Liftcrane - Luffing Jib No. 149 on Boom No. 82
Assemble-In-Air/Outside Assist

Boom Length		MAXIMUM REQUIRED PARTS OF LINE						
		Luffing Jib Length						
		Ft. (Meters)						
Ft.	Meters	110 (33.5)	120 (36.6)	130 (39.6)	140 (42.7)	150 (45.7)	160 (48.8)	170 (51.8)
210	64.0	3	2	2	2	2	2	2
220	67.1	2	2	2	2	2	2	2
230	70.1	2	2	2	2	2	2	2
240	73.2	2	2	2	2	2	2	2
250	76.2	2	2	2	2	2	2	1

WIRE ROPE LENGTHS (Includes All Luffing Jib Lengths)											
Boom Length		Hoist Line Front Drum		Whip Line Front Drum or Auxiliary Drum				Intermediate Fall Line Auxiliary Drum			
				1 Part		2 Part		1 Part		2 Part	
				Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters
210	64.0	1450	442	810	247	1225	373	720	219	1080	329
220	67.1	1450	442	830	253	1250	381	740	226	1110	338
230	70.1	1450	442	850	259	1275	389	760	232	1140	347
240	73.2	1450	442	870	265	1300	396	780	238	1170	357
250	76.2	1450	442	890	271	1325	404	800	244	1200	366

Note: Hoist, whip and intermediate fall 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 - Front Drum			
No. Parts of Line	1	2	3
Maximum Load - Lbs.	29,500	59,000	61,500
Maximum Load - kg	13 380	26 760	27 800

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Hoist Reeving for Intermediate Fall Line Auxiliary Drum		
No. Parts of Line	1	2
Maximum Load - Lbs.	20,000	40,000
Maximum Load - kg	9 070	18 140

Maximum Spooling Capacities	
Front Drum: (Hoist Line)	26 mm Wire Rope - 7 Layers - 1,727 Ft. (526m)
Auxiliary Drum: (Intermediate Fall 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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Rotation Resistant Wire Rope - 5:1 Safety Factor

Hoist Line:	26 mm -	2 160 N/mm ² Wire Rope With Pad Eye (MCC Part No. 719430) 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) 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)
Intermediate Fall Line: (Auxiliary Drum)	26 mm -	1 960 N/mm ² Wire Rope (MCC Part No. 719378) 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) 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/mm ² Wire Rope (MCC Part No. 719393) 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) 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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Optional Wire Rope - 3.5 : 1 Safety Factor

Hoist Line:	26 mm -	6 X 25 Filler Wire, Extra Improved Plow Steel Right Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength Required = 103,250 Lbs. (459.5 kN) 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)
Intermediate Fall Line: (Auxiliary Drum)	26 mm -	6 X 25 Filler Wire, Extra Improved Plow Steel Right 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 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.