

Wire Rope Specifications

222 WAGON

Liftcrane

Boom No. 222 With Open Throat Top

Wire Rope Lengths						
Boom or Boom and Jib Length		Whip Line Rear Drum		Hoist Line Front Drum		Maximum Required Parts of Line
		1 Part				
Ft.	Meters	Ft.	Meters	Ft.	Meters	
40	12.2	115	35	525	160	10
50	15.2	135	41	650	198	10
60	18.3	155	47	675	206	9
70	21.3	175	53	700	213	8
80	24.4	195	59	725	221	7
90	27.4	215	66	725	221	6
100	30.5	235	72	775	236	6
110	33.5	255	78	775	236	5
120	36.6	275	84	775	236	4
130	39.6	295	90	775	236	4
140	42.7	315	96	775	236	4
150	45.7	335	102	775	236	3
160	48.8	355	108	775	236	3
170	51.8	375	114	775	236	3
180	54.9	395	120	775	236	2
190	57.9	415	126	775	236	2
200	61.0	435	133	775	236	2
210	64.0	455	139			
220	67.1	475	145			
230	70.1	495	151			
240	73.2	515	157			
250	76.2	535	163			

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
Maximum Load - Lbs.	20,000	40,000	60,000	80,000	100,000
Maximum Load - kg	9 070	18 140	27 220	36 290	45 360
No. Parts of Line	6	7	8	9	10
Maximum Load - Lbs.	120,000	140,000	160,000	180,000	200,000
Maximum Load - kg	54 430	63 500	72 570	81 650	90 700

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Wire Rope Specifications	
<u>3.5:1 Safety Factor</u>	
Hoist Line:	7/8 in. - 6 x 25 Filler Wire, Extra Improved Plow Steel Right Hand Regular Lay, IWRC Minimum Breaking Strength = 79,600 Lbs. (36 110 kg) Approximate Weight = 1.42 Lbs. Per Ft. (2.11 kg/m) MCC Part No. 719111 No Load Dia. = 0.887 in. (22.5 mm) to 0.905 in. (23.0 mm)
Whip Line:	7/8 in. - 6 x 25 Filler Wire, Extra Improved Plow Steel Right Hand Regular Lay, IWRC Minimum Breaking Strength = 79,600 Lbs. (36 110 kg) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approximate Weight = 1.42 Lbs. Per Ft. (2.11 kg/m) MCC Part No. 719111 No Load Dia. = 0.887 in. (22.5 mm) to 0.905 in. (23.0 mm)
<u>Rotation Resistant Wire Rope - 5:1 Safety Factor</u>	
Hoist Line	22 mm - 2 160 N/mm² (MCC Part No. 719420) Right Hand Regular Lay
OR	
Whip Line:	Minimum Breaking Strength = 104,700 Lbs. (47 490 kg) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approximate Weight = 1.61 Lbs. Per Ft. (2.39 kg/m)
OR	
	7/8 in. - 1 960 N/mm² (MCC Part No. 719424) Right Hand Regular Lay Minimum Breaking Strength = 104,600 Lbs. (47 450 kg) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approximate Weight = 1.53 Lbs. Per Ft. (2.28 kg/m) No Load Dia. = 0.887 in. (22.5 mm) to 0.905 in. (23.0 mm)

Maximum Spooling Capacities	
Front Drum:	7/8 in. (22 mm) Wire Rope - 5 Layers - 655 Ft. (200m)
(Hoist Line)	5 Layers - 698 Ft. (213m) with 20-7/16 in. (519 mm) Dia. Lagging
Rear Drum:	7/8 in. (22 mm) Wire Rope - 5 Layers - 655 Ft. (200m)
(Whip Line)	5 Layers - 698 Ft. (213m) with 20-7/16 in. (519 mm) Dia. Lagging
16 Ft. (5m) is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.	

Refer to Drum and Lagging chart **No. 9196-A**.