

Wire Rope Specifications

Liftcrane
 Boom No. 222HD With Open Throat Top

222HD
222HD SERIES B

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	105	32	280	85	5
50	15.2	125	38	340	104	5
60	18.3	145	44	400	122	5
70	21.3	165	50	400	122	4
80	24.4	185	56	435	133	4
90	27.4	205	62	435	133	3
100	30.5	225	69	435	133	3
110	33.5	245	75	490	149	3
120	36.6	265	81	490	149	2
130	39.6	285	87	490	149	2
140	42.7	305	93	490	149	2
150	45.7	325	99	490	149	2
160	48.8	345	105			
170	51.8	365	111			
180	54.9	385	117			

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.	40,000	80,000	120,000	160,000	200,000
Maximum Load - kg	18 140	36 290	54 430	72 570	90 700

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<u>3.5:1 Safety Factor</u>	
Hoist Line: 1-1/4 in. (32 mm) - (High Line Pull)	6 x 31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC (MCC Part No. 719278) Minimum Breaking Strength 159,800 Lbs. (72 480 kg) Approx. Weight = 2.89 Lbs. Per Ft. (4.30 kg/m)
Whip Line: 7/8 in. (22 mm)	6 x 25 Filler Wire, Extra Improved Plow Steel 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
Whip Line: 1-1/4 in. (32 mm) - (High Line Pull - Optional)	6 x 31 Warrington-Seale, Extra Improved Plow Steel, Regular Lay, IWRC (MCC Part No. 719278) Minimum Breaking Strength 159,800 Lbs. (72 480 kg) Maximum Load = 40,000 Lbs. (18 140 kg) Per Line Approx. Weight = 2.89 Lbs. Per Ft. (4.30 kg/m)
<u>Rotation Resistant Wire Rope - 5:1 Safety Factor</u>	
Whip Line: 22 mm (7/8 in.)	2 160 N/mm ² (MCC Part No. 719420) 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. (22 mm)	1 960 N/mm ² (MCC Part No. 719424) 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: 1-1/4 in. (32 mm) Wire Rope - (Hoist Line)	4 Layers - 470 Ft. (143m)
Rear Drum: 7/8 in. (22 mm) Wire Rope - (Whip Line)	5 Layers - 655 Ft. (200m) 5 Layers - 698 Ft. (213m) with 20-7/16 in. (519 mm) Dia. Lagging
Rear Drum: 1-1/4 in. (32 mm) Wire Rope - (Whip Line - Optional)	4 Layers - 470 Ft. (143m)
16 Ft. (5m) and 21 Ft. (6m) are deducted from maximum spooling capacities for 3 dead wraps per drum or lagging with 7/8 in. (22 mm) and 1-1/4 in. (32mm) wire rope respectively.	

Refer to Drum and Lagging chart **No. 9089-A**.