

Wire Rope Specifications

Liftcrane

Boom No. 222HD/222 With Open Throat Top

222HD

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	500	152	10
50	15.2	125	38	600	183	10
60	18.3	145	44	725	221	10
70	21.3	165	50	725	221	8
80	24.4	185	56	725	221	7
90	27.4	205	62	725	221	6
100	30.5	225	69	725	221	6
110	33.5	245	75	725	221	5
120	36.6	265	81	725	221	4
130	39.6	285	87	725	221	4
140	42.7	305	93	725	221	4
150	45.7	325	99	725	221	3
160	48.8	345	105	725	221	3
170	51.8	365	111	725	221	3
180	54.9	385	117	725	221	2
190	57.9	405	123	725	221	2
200	61.0	425	130	725	221	2
210	64.0	445	136			
220	67.1	465	142			
230	70.1	485	148			
240	73.2	505	154			
250	76.2	525	160			

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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<u>3.5:1 Safety Factor</u>	
Hoist 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) Approximate Weight = 1.42 Lbs. Per Ft. (2.11 kg/m) MCC Part No. 719111
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
<u>Rotation Resistant Wire Rope - 5:1 Safety Factor</u>	
Hoist Line	22 mm (7/8 in.) - 2 160 N/mm ² (MCC Part No. 719420)
OR	Minimum Breaking Strength = 104,700 Lbs. (47 490 kg)
Whip Line:	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:	7/8 in. (22 mm) Wire Rope - 5 Layers - 839 Ft. (256m)
(Hoist Line)	
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) on Rear Drum and 21 Ft. (6m) on Front Drum are deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.	

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