

Wire Rope Specifications

MLC650

Liftcrane - Boom No. B10:680

Wire Rope Lengths - Tandem Hoist Drums										
Boom Length		Whip Line Drum 3				Hoist Line Drum 1		Hoist Line Drum 2		Total Parts of Line
		1 Part		2 Parts						
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	
32,0	105.0	85	280	120	390	535	1,760	535	1,760	30
38,0	124.7	100	320	140	450	560	1,830	560	1,830	26
44,0	144.4	110	350	155	510	595	1,950	595	1,950	24
50,0	164.0	120	390	175	570	625	2,040	625	2,040	22
56,0	183.7	135	430	195	630	695	2,280	695	2,280	22
62,0	203.4	145	470	210	690	700	2,300	700	2,300	20
68,0	223.1	155	510	230	750	700	2,300	700	2,300	18
74,0	242.8	170	550	250	810	685	2,250	685	2,250	16
80,0	262.5	180	590	265	860	740	2,420	740	2,420	16
86,0	282.2	195	630	280	920	705	2,320	705	2,320	14
92,0	301.8	205	670	300	980	660	2,170	660	2,170	12
98,0	321.5	215	710	320	1,040	605	1,990	605	1,990	10
104,0	341.2	230	750	335	1,100	535	1,760	535	1,760	8

Note: Above hoist line lengths are based on tandem drums both reeved to main load block. Each drum is dead ended in main load block reeving. Total parts of line requires using both Drums 1 and 2. Hoist and whip line lengths 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.

Refer to Block Overhaul Weights chart No. 9409-A for minimum weight required for block lowering.

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Hoist Reeving for Main Load Block - Two Lead Lines						
No. Parts of Line	2	4	6	8	10	12
Maximum Load - kg	44 260	88 520	132 780	177 040	221 300	265 560
Maximum Load - lb	97,600	195,200	292,800	390,400	488,000	585,600
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130	22 130	22 130
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800	48,800	48,800
No. Parts of Line	14	16	18	20	22	24
Maximum Load - kg	309 820	354 080	398 340	442 600	486 860	531 120
Maximum Load - lb	683,200	780,800	878,400	976,000	1,073,600	1,171,200
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130	22 130	22 130
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800	48,800	48,800
No. Parts of Line	26	28	30	32		
Maximum Load - kg	575 380	619 640	650 000	650 000		
Maximum Load - lb	1,268,800	1,366,400	1,433,000	1,433,000		
Maximum Load per Part of Line - kg	22 130	22 130	21 666	20 312		
Maximum Load per Part of Line - lb	48,800	48,800	47,766	44,781		

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Wire Rope Lengths - Single Hoist Drum								
Boom Length		Whip Line Drum 1 or 2 or 3				Hoist Line Drum 1 or 2		Total Parts of Line
		1 Part		2 Parts				
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	
32,0	105.0	85*	280*	120*	390*	1 025	3,370	30
38,0	124.7	100	320	140	450	1 065	3,500	26
44,0	144.4	110	350	155	510	1 130	3,710	24
50,0	164.0	120	390	175	570	1 130	3,710	21
56,0	183.7	135	430	195	630	1 095	3,590	18
62,0	203.4	145	470	210	690	1 143	3,750	17
68,0	223.1	155	510	230	750	1 115	3,650	15
74,0	242.8	170	550	250	810	1 143	3,750	14
80,0	262.5	180	590	265	860	1 143	3,750	13
86,0	282.2	195	630	280	920	1 143	3,750	12
92,0	301.8	205	670	300	980	1 125	3,690	11
98,0	321.5	215	710	320	1,040	1 100	3,610	10
104,0	341.2	230	750	335	1,100	955	3,130	8

Note: Above hoist line lengths are based on single part lead line. Hoist and whip line lengths 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.

*When used as a whip drum, maximum spooling on Drums 1 or 2 may be exceeded if rope length is greater than 1 135 m (3,730 ft).

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Hoist Reeving for Main Load Block - Single Lead Lines						
No. Parts of Line	1	2	3	4	5	6
Maximum Load - kg	22 130	44 260	66 390	88 520	110 650	132 780
Maximum Load - lb	48,800	97,600	146,400	195,200	244,000	292,800
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130	22 130	22 130
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800	48,800	48,800
No. Parts of Line	7	8	9	10	11	12
Maximum Load - kg	154 910	177 040	199 170	221 300	243 430	265 560
Maximum Load - lb	341,600	390,400	439,200	488,000	536,800	585,600
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130	22 130	22 130
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800	48,800	48,800
No. Parts of Line	13	14	15	16	17	18
Maximum Load - kg	287 690	309 820	330 580	350 900	371 020	390 930
Maximum Load - lb	634,400	683,200	728,820	773,610	817,960	861,860
Maximum Load per Part of Line - kg	22 130	22 130	22 039	21 931	21 824	21 718
Maximum Load per Part of Line - lb	48,800	48,800	48,588	48,350	48,115	47,881
No. Parts of Line	19	20	21	22	23	24
Maximum Load - kg	410 640	430 160	449 480	468 610	487 540	506 290
Maximum Load - lb	905,320	948,350	990,940	1,033,110	1,074,860	1,116,200
Maximum Load per Part of Line - kg	21 612	21 508	21 403	21 300	21 197	21 095
Maximum Load per Part of Line - lb	47,648	47,417	47,187	46,959	46,733	46,508
No. Parts of Line	25	26	27	28	29	30
Maximum Load - kg	524 850	543 230	561 420	579 430	597 260	614 910
Maximum Load - lb	1,157,110	1,197,620	1,237,730	1,277,430	1,316,740	1,355,650
Maximum Load per Part of Line - kg	20 994	20 893	20 793	20 693	20 595	20 497
Maximum Load per Part of Line - lb	46,284	46,062	45,841	45,622	45,404	45,188

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Hoist Reeving for Whip Load Block - Single Lead Line (Drum 3)		
No. Parts of Line	1	2
Maximum Load - kg	13 600	27 200
Maximum Load - lb	30,000	60,000
Maximum Load per Part of Line - kg	13 600	13 600
Maximum Load per Part of Line - lb	30,000	30,000

Hoist Reeving for Whip Load Block - Single Lead Line (Drum 1 or 2)		
No. Parts of Line	1	2
Maximum Load - kg	22 100	33 300
Maximum Load - lb	48,800	73,500
Maximum Load per Part of Line - kg	22 100	16 650
Maximum Load per Part of Line - lb	48,800	36,750

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<u>Rotation Resistant Wire Rope</u> Hoist or Whip Line: 32 mm (Drum 1 & 2): Wire Rope with Spelter Button and Pad Eye Right Hand Lang Lay Minimum Breaking Strength = 110 680 kg (244,000 lb) Approx. Weight = 5,6 kg/m (3.7 lb/ft) Whip Line: 28 mm (Drum 3): Wire Rope with Spelter Button and Pad Eye Right Hand Lang Lay Minimum Breaking Strength = 72 580 kg (160,000 lb) Approx. Weight = 3,9 kg/m (2.6 lb/ft)

Maximum Spooling Capacities	
Drum 1: (Hoist or Whip Line)	32 mm Wire Rope - 10 Layers - 1 100 m (3,608 ft)
Drum 2: (Hoist or Whip Line)	32 mm Wire Rope - 10 Layers - 1 100 m (3,608 ft)
Drum 3: (Whip Line)	28 mm Wire Rope - 8 Layers - 579 m (1,900 ft)
7 m (22 ft) is deducted from maximum spooling capacity for 3 dead wraps per drum.	

Refer to Drum and Lagging chart **No. 9351-A** and Load Block Reeving in Operator's Manual.