

Wire Rope Specifications

MLC650

Luffing Jib No. LJ10:681-682 on
Boom No. B10:680

Table 1

Maximum Required Parts of Line - Tandem Hoist Drums										
Boom Length		Luffing Jib Length								
		Meters (Feet)								
Meters	Feet	26,0 (85.3)	29,0 (95.1)	32,0 (105.0)	35,0 (114.8)	38,0 (124.7)	41,0 (134.5)	44,0 (144.4)	47,0 (154.2)	50,0 (164.0)
38,0	124.7	14	12	12	12	10	10	10	10	10
44,0	144.4	12	12	12	12	10	10	10	10	10
50,0	164.0	12	12	12	10	10	10	10	10	10
56,0	183.7	12	12	10	10	10	10	10	10	8
62,0	203.4	12	12	10	10	10	10	10	8	8
68,0	223.1	12	10	10	10	10	8	8	8	8

Table 1 (continued)

Maximum Required Parts of Line - Tandem Hoist Drums										
Boom Length		Luffing Jib Length								
		Meters (Feet)								
Meters	Feet	53,0 (173.9)	59,0 (193.6)	65,0 (213.3)	71,0 (232.9)	77,0 (252.6)	83,0 (272.3)	89,0 (292.0)	95,0 (311.7)	101,0 (331.4)
38,0	124.7	10	8	8	8	6	6	4	4	4
44,0	144.4	8	8	8	6	6	6	4	4	4
50,0	164.0	8	8	8	6	6	4	4	4	4
56,0	183.7	8	8	6	6	6	4	4	4	4
62,0	203.4	8	8	6	6	4	4	—	—	—
68,0	223.1	6	6	—	—	—	—	—	—	—

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Table 2

Maximum Parts of Line For Full Hoisting Range Single Hoist Drum										
Boom Length		Luffing Jib Length Meters (Feet)								
Meters	Feet	26,0 (85.3)	29,0 (95.1)	32,0 (105.0)	35,0 (114.8)	38,0 (124.7)	41,0 (134.5)	44,0 (144.4)	47,0 (154.2)	50,0 (164.0)
38,0	124.7	13	12	11	11	10	10	10	10	9
44,0	144.4	12	12	11	11	10	10	9	9	9
50,0	164.0	12	11	11	10	10	9	9	9	9
56,0	183.7	11	11	10	10	9	9	9	9	8
62,0	203.4	11	11	10	10	9	9	9	8	8
68,0	223.1	11	10	10	9	9	8	8	7	7

Table 2 (continued)

Maximum Parts of Line For Full Hoisting Range Single Hoist Drum										
Boom Length		Luffing Jib Length Meters (Feet)								
Meters	Feet	53,0 (173.9)	59,0 (193.6)	65,0 (213.3)	71,0 (232.9)	77,0 (252.6)	83,0 (272.3)	89,0 (292.0)	95,0 (311.7)	101,0 (331.4)
38,0	124.7	9	8	8	7	6	5	4	4	3
44,0	144.4	8	8	7	6	5	5	4	3	3
50,0	164.0	8	8	7	6	5	4	4	3	3
56,0	183.7	8	7	6	5	5	4	4	3	3
62,0	203.4	7	7	6	5	4	4	—	—	—
68,0	223.1	6	6	—	—	—	—	—	—	—

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Table 3

Maximum Parts of Whip Line For Full Hoisting Range Drums 1 or 2 or 3										
Boom Length		Luffing Jib Length Meters (Feet)								
Meters	Feet	26,0 (85.3)	29,0 (95.1)	32,0 (105.0)	35,0 (114.8)	38,0 (124.7)	41,0 (134.5)	44,0 (144.4)	47,0 (154.2)	50,0 (164.0)
38,0	124.7	2	2	2	2	2	2	2	2	2
44,0	144.4	2	2	2	2	2	2	2	2	2
50,0	164.0	2	2	2	2	2	2	2	2	2
56,0	183.7	2	2	2	2	2	2	2	2	2
62,0	203.4	2	2	2	2	2	2	2	2	2
68,0	223.1	2	2	2	2	2	2	2	2	2

Table 3 (continued)

Maximum Parts of Whip Line For Full Hoisting Range Drums 1 or 2 or 3										
Boom Length		Luffing Jib Length Meters (Feet)								
Meters	Feet	53,0 (173.9)	59,0 (193.6)	65,0 (213.3)	71,0 (232.9)	77,0 (252.6)	83,0 (272.3)	89,0 (292.0)	95,0 (311.7)	101,0 (331.4)
38,0	124.7	2	2	2	2	2	2	2	2	2
44,0	144.4	2	2	2	2	2	2	2	2	2
50,0	164.0	2	2	2	2	2	2	2	2	2
56,0	183.7	2	2	2	2	2	2	2	2	2
62,0	203.4	2	2	2	2	2	2	—	—	—
68,0	223.1	2	2	—	—	—	—	—	—	—

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Table 4

Wire Rope Lengths - Tandem Hoist Drums (Includes all Luffing Jib lengths)									
Boom Length		Whip Line Drum 3				Hoist Line Drum 1		Hoist Line Drum 2	
		1 Part		2 Parts					
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet
38,0	124.7	295	960	435	1,420	555	1,820	555	1,820
44,0	144.4	305	1,000	450	1,480	570	1,870	570	1,870
50,0	164.0	320	1,050	470	1,540	610	2,000	610	2,000
56,0	183.7	330	1,080	490	1,610	625	2,050	625	2,050
62,0	203.4	310	1,010	455	1,490	645	2,120	645	2,120
68,0	223.1	270	890	400	1,310	670	2,190	670	2,190

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.

Table 5

Hoist Reeving for Main Load Block - Two Lead Lines				
No. Parts of Line	2	4	6	8
Maximum Load - kg	44 260	88 520	132 780	177 040
Maximum Load - lb	97,600	195,200	292,800	390,400
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800
No. Parts of Line	10	12	14	
Maximum Load - kg	221 300	265 560	275 000	
Maximum Load - lb	488,000	585,600	606,270	
Maximum Load per Part of Line - kg	22 130	22 130	19,642	
Maximum Load per Part of Line - lb	48,800	48,800	43,305	

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Table 6

Wire Rope Lengths - Single Hoist Drum (Includes all Luffing Jib lengths)							
Boom Length		Whip Line Drum 1 or 2 or 3				Hoist Line Drum 1 or 2	
		1 Part		2 Parts			
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet
38,0	124.7	295	960	435	1,420	940	3,080
44,0	144.4	305	1,000	450	1,480	960	3,150
50,0	164.0	320	1,050	470	1,540	1 005	3,290
56,0	183.7	330	1,080	490	1,610	1 035	3,390
62,0	203.4	310	1,010	455	1,490	1 100	3,610
68,0	223.1	270	890	400	1,310	1 140	3,740

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.

Table 7

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	242 320	263 050
Maximum Load - lb	341,600	390,400	439,200	488,000	534,230	579,940
Maximum Load per Part of Line - kg	22 130	22 130	22 130	22 130	22 029	21 920
Maximum Load per Part of Line - lb	48,800	48,800	48,800	48,800	48,566	48,328
No. Parts of Line	13					
Maximum Load - kg	275 000					
Maximum Load - lb	606,270					
Maximum Load per Part of Line - kg	21 153					
Maximum Load per Part of Line - lb	46,636					

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Table 8

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

Table 9

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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Table 10

Wire Rope Specifications
<p><u>Rotation Resistant Wire Rope</u></p> <p>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)</p> <p>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)</p>

Table 11

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