Wire Rope Specifications

MLC300

Liftcrane - Boom No. B15:505-500

Wire Rope Lengths - Tandem Hoist Drums										
Boom Length		Whip Line Drum 6				Hoist Line Drum 2		Hoist Line Drum 3		Total Parts of Line
		1 Part		2 Parts						
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	
42,0	137.8	100	330	145	470	400	1,310	400	1,310	16
48,0	157.5	110	360	165	530	455	1,480	455	1,480	16
54,0	177.2	125	400	180	590	455	1,480	455	1,480	14
60,0	196.9	135	440	200	650	440	1,440	440	1,440	12
66,0	216.5	150	480	215	710	415	1,360	415	1,360	10
72,0	236.2	160	520	235	770	450	1,480	450	1,480	10
78,0	255.9	170	560	255	830	410	1,340	410	1,340	8
84,0	275.6	185	600	270	890	355	1,160	355	1,160	6
90,0	295.3	195	640	290	940	375	1,230	375	1,230	6

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 2 and 3. 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.

Hoist Reeving for Main Load Block - Two Lead Lines (Drums 2 & 3)					
No. Parts of Line	2	4	6	8	10
Maximum Load - kg	33 340	66 680	100 020	133 360	166 700
Maximum Load - lb	73,520	147,040	220,560	294,080	367,600
Maximum Load per Part of Line - kg	16 670	16 670	16 670	16 670	16 670
Maximum Load per Part of Line - lb	36,760	36,760	36,760	36,760	36,760
No. Parts of Line	12	14	16		
Maximum Load - kg	200 040	233 380	266 720		
Maximum Load - lb	441,120	514,640	588,160		
Maximum Load per Part of Line - kg	16 670	16 670	16 670		
Maximum Load per Part of Line - lb	36,760	36,760	36,760		

Wire Rope Specifications

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Liftcrane - Boom No. B15:505-500

Wire Rope Lengths - Single Hoist Drum											
Boom Length		Whip Line Drum 2 or 3 or 6				Hoist Line Drum 1		Total Parts of Line	Hoist Line Drum 2		Total Parts of Line
		1 Part		2 Parts							
Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet		Meters	Feet	
42,0	137.8	105	340	150	480	780	2,560	17	445	1,460	9
48,0	157.5	115	370	165	540	790	2,580	15	455	1,490	8
54,0	177.2	125	410	185	600	835	2,730	14	455	1,490	7
60,0	196.9	140	450	200	660	800	2,630	12	445	1,450	6
66,0	216.5	150	490	220	720	815	2,670	11	420	1,370	5
72,0	236.2	165	530	240	780	740	2,420	9	450	1,480	5
78,0	255.9	175	570	255	840	640	2,100	7	410	1,340	4
84,0	275.6	185	610	275	900	605	1,980	6	440	1,440	4
90,0	295.3	200	650	290	950	555	1,010	5	375	1,230	3

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.

Manitowoc Cranes
Manitowoc, Wisconsin 54220 U.S.A.

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Hoist Reeving for Main Load Block - Single Lead Lines (Drum 1 or 2)						
No. Parts of Line	1	2	3	4	5	6
Maximum Load - kg	16 670	33 340	50 010	66 680	83 350	100 020
Maximum Load - lb	36,760	73,520	110,280	147,040	183,800	220,560
Maximum Load per Part of Line - kg	16 670	16 670	16 670	16 670	16 670	16 670
Maximum Load per Part of Line - lb	36,760	36,760	36,760	36,760	36,760	36,760
No. Parts of Line	7	8	9	10	11	12
Maximum Load - kg	116 690	133 360	150 030	166 700	183 370	200 040
Maximum Load - lb	257,320	294,080	330,840	367,600	404,360	441,120
Maximum Load per Part of Line - kg	16 670	16 670	16 670	16 670	16 670	16 670
Maximum Load per Part of Line - lb	36,760	36,760	36,760	36,760	36,760	36,760
No. Parts of Line	13	14	15	16	17	
Maximum Load - kg	216 710	233 380	250 050	266 720	267 800	
Maximum Load - lb	477,880	514,640	551,400	588,160	590,500	
Maximum Load per Part of Line - kg	16 670	16 670	16 670	16 670	15 752	
Maximum Load per Part of Line - lb	36,760	36,760	36,760	36,760	34,735	

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Hoist Reeving for Whip Load Block - Single Lead Line (Drum 6)		
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 2 or 3)		
No. Parts of Line	1	2
Maximum Load - kg	16 600	33 300
Maximum Load - lb	36,700	73,520
Maximum Load per Part of Line - kg	16 670	16 670
Maximum Load per Part of Line - lb	36,760	36,760

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Wire Rope Specifications
Rotation Resistant Wire Rope **Hoist Line**: **28 mm** (Drum 1): Wire Rope with Spelter Button and Pad Eye Right Hand Lang Lay Minimum Breaking Strength = 83 370 kg (183,800 lb) Approx. Weight = 4,2 kg/m (2.8 lb/ft) No Load Dia.= 28.83 mm (1.135 in) to 29.08 mm (1.145 in) MCC Reference No. 81025289, 81026075, or 81024556 **Whip/Auxiliary Line:** **28 mm** (Drums 2, 3 & 6): Wire Rope with Spelter Button and Pad Eye Right Hand Lang Lay Minimum Breaking Strength = 83 370 kg (183,800 lb) Approx. Weight = 4,2 kg/m (2.8 lb/ft) No Load Dia. = 28.83 mm (1.135 in) to 29.08 mm (1.145 in) MCC Reference No. 81025289, 81026075, or 81024556

Maximum Spooling Capacities	
Drum 1: (Hoist Line)	28 mm Wire Rope - 8 Layers - 939 m (3,082 ft)
Drum 2: (Auxiliary Line)	28 mm Wire Rope - 6 Layers - 418 m (1,372 ft)
Drum 3: (Auxiliary Line)	28 mm Wire Rope - 6 Layers - 418 m (1,372 ft)
Drum 6: (Auxiliary Line)	28 mm Wire Rope - 7 Layers - 400 m (1,312 ft)
7 m (22 ft) is deducted from maximum spooling capacity for 3 dead wraps per drum.	

Refer to Drum and Lagging chart **No. 9339-A** and Load Block Reeving in the Operator Manual.

Refer to Block Overhaul Weights chart **No. 9413-A** for minimum weight required for block lowering.

Warning: Free fall operation is limited to 8 300 kg (18,300 lb) per part of line when lowering load with free fall clutch/brake pedal. Hydraulic power shall be used for full line pull. *Permanent brake damage could occur allowing the load to lower uncontrolled.*