Wire Rope Specifications

Liftcrane - Boom No. B65:685-680
with Mast No. M11:684

MLC650
VPC-MAX

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	
56,0	183.7	130	430	190	630	865	2,830	865	2,830	28
62,0	203.4	145	470	210	690	890	2,920	890	2,920	26
68,0	223.1	155	510	230	750	905	2,970	905	2,970	24
74,0	242.8	170	550	245	800	905	2,970	905	2,970	22
80,0	262.5	180	590	265	860	900	2,950	900	2,950	20
86,0	282.2	190	630	280	920	880	2,880	880	2,880	18
92,0	301.8	205	670	300	980	935	3,070	935	3,070	18
98,0	321.5	215	710	320	1,040	900	2,950	900	2,950	16
104,0	341.2	230	750	335	1,100	850	2,780	850	2,780	14
110,0	360.9	240	780	355	1,160	785	2,570	785	2,570	12
116,0	380.6	250	820	370	1,210	710	2,330	710	2,330	10
122,0	400.3	265	860	390	1,270	745	2,450	745	2,450	10
128,0	419.9	275	900	405	1,330	655	2,140	655	2,140	8
134,0	439.6	290	940	425	1,390	685	2,240	685	2,240	8
140,0	459.3	300	980	445	1,450	575	1,890	575	1,890	6
146,0	479.0	310	1,020	460	1,510	600	1,970	600	1,970	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 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.

REFERENCE ONLY.

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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				
Maximum Load - kg	575 380	600 000				
Maximum Load - lb	1,268,800	1,322,700				
Maximum Load per Part of Line - kg	22 130	21 428				
Maximum Load per Part of Line - lb	48,800	47,239				

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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	
56,0	183.7	130	430	190	630	1 143	3,750	19
62,0	203.4	145	470	210	690	1 143	3,750	17
68,0	223.1	155	510	230	750	1 110	3,640	15
74,0	242.8	170	550	245	800	1 130	3,700	14
80,0	262.5	180	590	265	860	1 143	3,750	13
86,0	282.2	190	630	280	920	1 143	3,750	12
92,0	301.8	205	670	300	980	1 120	3,680	11
98,0	321.5	215	710	320	1,040	1 095	3,590	10
104,0	341.2	230	750	335	1,100	1 055	3,460	9
110,0	360.9	240	780	355	1,160	1 115	3,660	9
116,0	380.6	250	820	370	1,210	1 060	3,470	8
122,0	400.3	265	860	390	1,270	1 115	3,660	8
128,0	419.9	275	900	405	1,330	1 040	3,410	7
134,0	439.6	290	940	425	1,390	1 085	3,560	7
140,0	459.3	300	980	445	1,450	1 005	3,290	6
146,0	479.0	310	1,020	460	1,510	1 045	3,420	6

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.

REFERENCE ONLY

Wire Rope Specifications

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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					
Maximum Load - kg	410 640					
Maximum Load - lb	905,320					
Maximum Load per Part of Line - kg	21 612					
Maximum Load per Part of Line - lb	47,648					

REFERENCE ONLY!

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

Wire Rope Specifications

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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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Wire Rope Specifications
Rotation Resistant Wire Rope **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)

REFERENCE ONLY!

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.

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