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

Wire Rope Specifications

Liftcrane - Boom No. 44 With Long Reach Top

M-250
M-250 SERIES 2, 3

Wire Rope Lengths												
Boom or Boom and Jib Length		Whip Line Left Rear or Front Drum								Hoist Line Right Rear Drum		Maximum Required Parts of Line
		1 Part		2 Part		3 Part		4 Part				
Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters	
190	57.9	430	131	625	191					1600	488	7
200	61.0	450	137	650	198					1675	511	7
210	64.0	470	143	675	206					1750	533	7
220	67.1	490	149	725	221					1850	564	7
230	70.1	510	155	750	229	975	297	1225	373	1925	587	7
240	73.2	530	162	775	236	1025	312	1275	389	2050	625	7
250	76.2	550	168	800	244	1050	320	1325	404	2050	625	6
260	79.2	570	174	825	251	1100	335	- - -	- - -	2050	625	6
270	82.3	590	180	850	259	1125	343	- - -	- - -	2050	625	6
280	85.3	610	186	900	274	1175	358	- - -	- - -	2050	625	5
290	88.4	630	192	925	282	1225	373	- - -	- - -	2050	625	5
300	91.4	650	198	950	290	1250	381	- - -	- - -	2050	625	4
310	94.5	660	201	975	297	1300	396	- - -	- - -	2050	625	4
320	97.5	680	207	1000	305	1325	404	- - -	- - -	2050	625	4
330	100.6	700	213	1025	312	- - -	- - -	- - -	- - -	2050	625	4
340	103.6	720	219	1075	328	- - -	- - -	- - -	- - -			
350	106.7	740	226	1100	335	- - -	- - -	- - -	- - -			
360	109.7	760	232	1125	343	- - -	- - -	- - -	- - -			
370	112.8	780	238	1150	351	- - -	- - -	- - -	- - -			
380	115.8	800	244	1175	358	- - -	- - -	- - -	- - -			
390	118.9	820	250	1200	366	- - -	- - -	- - -	- - -			

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. Maximum hook travel for upper boom point application may be restricted when whip line length exceeds 1,270 Ft. (387m) using 24½ in. (622 mm) Dia. lagging on left rear drum.

Hoist Reeving for Main Load Block - Rotation Resistant Wire Rope							
No. Parts of Line	1	2	3	4	5	6	7
Maximum Load - Lbs.	30,000	60,000	90,000	120,000	150,000	180,000	210,000
Maximum Load - kg	13 610	27 220	40 820	54 430	68 040	81 650	95 200

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M-250

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Wire Rope Specifications		
Hoist Line:	1-1/8 in. (28.6 mm) -	1 960 N/mm^2 Wire Rope Minimum Breaking Strength = 154,900 Lbs. (70 260 kg) MCC Part No. 719375 Approx. Weight = 2.70 Lbs. Per Ft. (4.02 kg/m)
		Or
	29 mm (1-1/8 in.) -	1 770 N/mm^2 Wire Rope Minimum Breaking Strength = 154,700 Lbs. (70 170 kg) MCC Part No. 719374 Approx. Weight = 2.85 Lbs. Per Ft. (4.25 kg/m)
Whip Line:	1-1/8 in. (28.6 mm) -	1 960 N/mm^2 Wire Rope Minimum Breaking Strength = 154,900 Lbs. (70 260 kg) Maximum Load = 30,000 Lbs. (13 610 kg) per line MCC Part No. 719375 Approx. Weight = 2.70 Lbs. Per Ft. (4.02 kg/m)
		Or
	29 mm (1-1/8 in.) -	1 770 N/mm^2 Wire Rope Minimum Breaking Strength = 154,700 Lbs. (70 170 kg) Maximum Load = 30,000 Lbs. (13 610 kg) per line MCC Part No. 719374 Approx. Weight = 2.85 Lbs. Per Ft. (4.25 kg/m)
Rigging Winch Line:	3/8 in. (9.5 mm) -	6 x 19 Filler Wire, Improved Plow Steel, Regular Lay, IWRC Minimum Breaking Strength =13,100 Lbs. (5 940 kg)) MCC Part No. 719019 Recommended Length = 800 Ft. (244m)

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Maximum Spooling Capacities			
Right Rear Drum: (Hoist Line)	1-1/8 in. (28.6 mm) Wire Rope -	8 Layers -	2,411 Ft. (735m) 2,566 Ft. (782m) with 24½ in. (622 mm) Dia. Lagging
	29 mm Wire Rope -	8 Layers -	2,394 Ft. (730m) 2,546 Ft. (776m) with 24½ in. (622 mm) Dia. Lagging
Left Rear Drum (Whip Line)	1-1/8 in. (28.6 mm) Wire Rope -	9 Layers -	1,173 Ft. (358m)
		8 Layers -	1,068 Ft. (326m) with 24½ in. (622 mm) Dia. Lagging
	29 mm Wire Rope -	9 Layers -	1,164 Ft. (355m)
		8 Layers -	1,060 Ft. (323m) with 24½ in. (622 mm) Dia. Lagging
Front Drum: (Whip Line)	1-1/8 in. (28.6 mm) Wire Rope -	8 Layers -	2,028 Ft. (618m) 2,158 Ft. (658m) with 24½ in. (622 mm) Dia. Lagging
	29 mm Wire Rope -	8 Layers -	2,013 Ft. (614m) 2,141 Ft. (653m) with 24½ in. (622 mm) Dia. Lagging

20 Ft. (6m) is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.

Refer to Drum and Lagging chart **No. 6118-A**.