

MANITOWOC ENGINEERING CO.

Division of the Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



WIRE ROPE SPECIFICATIONS

M-250

LIFTCRANE - BOOM NO. 44 WITH HEAVY LIFT TOP
28 mm WIRE ROPE

M-250 SERIES 2

JAPANESE CONSTRUCTION
CODES FOR MOBILE CRANES

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	
70	21.3	190	58	275	84					1525	465	19
80	24.4	210	64	300	91					1725	526	19
90	27.4	230	70	325	99					1925	587	19
100	30.5	250	76	350	107					2125	648	19
110	33.5	270	82	375	114					2125	648	15
120	36.6	290	88	425	130					2125	648	14
130	39.6	310	94	450	137					2125	648	14
140	42.7	330	101	475	145					2125	648	13
150	45.7	350	107	500	152					2125	648	12
160	48.8	370	113	525	160					2125	648	11
170	51.8	390	119	575	175	725	221	925	282	2125	648	11
180	54.9	410	125	600	183	775	236	975	297	2250	686	11
190	57.9	430	131	625	191	825	251	1025	312	2250	686	9
200	61.0	450	137	650	198	850	259	1075	328	2250	686	9
210	64.0	470	143	675	206	900	274	1125	343	2250	686	9
220	67.1	490	149	725	221	925	282	1175	358	2250	686	8
230	70.1	510	155	750	229	975	297	1225	373	2250	686	7
240	73.2	530	162	775	236	1025	312	1270	387	2250	686	7
250	76.2	550	168	800	244	1050	320	----	---	2250	686	6
260	79.2	570	174	825	251	1100	335	----	---	2250	686	6
270	82.3	590	180	850	259	1125	343	----	---	2250	686	6
280	85.3	610	186	900	274	1175	358	----	---	2250	686	5
290	88.4	630	192	925	282	1225	373	----	---	2250	686	5
300	91.4	650	198	950	290	1250	381	----	---			
310	94.5	660	201	975	297	----	---	----	---			
320	97.5	680	207	1000	305	----	---	----	---			
330	100.6	700	213	1025	312	----	---	----	---			
340	103.6	720	219	1075	328	----	---	----	---			
350	106.7	740	226	1100	335	----	---	----	---			

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 1,170' (357m) USING 24-1/2" (622 mm) DIA. LAGGING ON LEFT REAR DRUM.

UPPER BOOM POINT ASSEMBLY REQUIRED FOR 19 PART REEVING.

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HOIST REEVING FOR MAIN LOAD BLOCK						
NO. PARTS OF LINE	1	2	3	4	5	6
MAXIMUM LOAD-LBS.	29,700	58,900	87,500	115,500	143,000	169,900
MAXIMUM LOAD-kg	13 470	26 720	39 690	52 390	64 860	77 070
NO. PARTS OF LINE	7	8	9	10	11	12
MAXIMUM LOAD-LBS.	196,300	222,100	247,500	272,300	296,600	320,500
MAXIMUM LOAD-kg	89 040	100 740	112 260	123 510	134 540	145 380
NO. PARTS OF LINE	13	14	15	16	17	18
MAXIMUM LOAD-LBS.	343,800	366,700	389,200	411,200	432,700	453,900
MAXIMUM LOAD-kg	155 950	166 330	176 540	186 520	196 270	205 890
NO. PARTS OF LINE	19					
MAXIMUM LOAD-LBS.	474,600					
MAXIMUM LOAD-kg	215 200					

WIRE ROPE SPECIFICATIONS	
HOIST LINE:	28 mm - TOUGH NUFLEX - T S (19) 39 X 7 SPECIAL GRADE WIRE ROPE ORDINARY Z LAY - NON-ROTATING MINIMUM BREAKING STRENGTH 154,700 LBS. (688.0 kN) APPROX. WEIGHT = 2.65 LBS. PER FT. (3.95 kg/m) OR 28 mm - BRIDON DYFORM - 34LR WIRE ROPE, RIGHT HAND REGULAR LAY MINIMUM BREAKING STRENGTH 152,000 LBS. (68 950 kg) MEC PART NO. 719367 APPROX. WEIGHT = 2.63 LBS. PER FT. (3.91 kg/m)
WHIP LINE:	28 mm - TOUGH NUFLEX - T S (19) 39 X 7 SPECIAL GRADE WIRE ROPE ORDINARY Z LAY - NON-ROTATING MINIMUM BREAKING STRENGTH 154,700 LBS. (688.0 kN) APPROX. WEIGHT = 2.65 LBS. PER FT. (3.95 kg/m) OR 28 mm - BRIDON DYFORM - 34LR WIRE ROPE, RIGHT HAND REGULAR LAY MINIMUM BREAKING STRENGTH 152,000 LBS. (68 950 kg) MEC PART NO. 719367 APPROX. WEIGHT = 2.63 LBS. PER FT. (3.91 kg/m)
RIGGING WINCH LINE:	3/8" (9.5 mm) - 6 X 19 FILLER WIRE, IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MEC PART NO. 719019 MINIMUM BREAKING STRENGTH 13,100 LBS. (5 940 kg) RECOMMENDED LENGTH = 800' (244m)

MAXIMUM SPOOLING CAPACITIES	
RIGHT REAR DRUM: (HOIST LINE)	28 mm WIRE ROPE - 8 LAYERS - 2,459' (750m)
LEFT REAR DRUM: (WHIP LINE)	28 mm WIRE ROPE - 9 LAYERS - 1,196' (358m) 8 LAYERS - 1,090' (332m) WITH 24-1/2" (622 mm) DIA. LAGGING
FRONT DRUM: (WHIP LINE)	28 mm WIRE ROPE - 9 LAYERS - 2,412' (735m)
20' (6m) IS DEDUCTED FROM MAXIMUM SPOOLING CAPACITIES FOR 3 DEAD WRAPS PER DRUM OR LAGGING.	

REFER TO DRUM AND LAGGING CHART NO. 6120-A.