

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
32 mm AND 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 28 mm WIRE ROPE LEFT REAR OR FRONT DRUM								HOIST LINE 32 mm WIRE ROPE 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					1625	495	18
90	27.4	230	70	325	99					1725	526	17
100	30.5	250	76	350	107					1800	549	16
110	33.5	270	82	375	114					1800	549	13
120	36.6	290	88	425	130					1800	549	13
130	39.6	310	94	450	137					1800	549	12
140	42.7	330	101	475	145					2000	610	12
150	45.7	350	107	500	152					2000	610	11
160	48.8	370	113	525	160					2000	610	10
170	51.8	390	119	575	175	725	221	925	282	2000	610	10
180	54.9	410	125	600	183	775	236	975	297	2050	625	10
190	57.9	430	131	625	191	825	251	1025	312	2050	625	9
200	61.0	450	137	650	198	850	259	1075	328	2050	625	8
210	64.0	470	143	675	206	900	274	1125	343	2050	625	8
220	67.1	490	149	725	221	925	282	1175	358	2050	625	8
230	70.1	510	155	750	229	975	297	1225	373	2050	625	7
240	73.2	530	162	775	236	1025	312	1270	387	2050	625	7
250	76.2	550	168	800	244	1050	320	----	---	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	5
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	----	---			
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.

HOIST REEVING FOR MAIN LOAD BLOCK						
NO. PARTS OF LINE	1	2	3	4	5	6
MAXIMUM LOAD-LBS.	30,000	60,000	90,000	120,000	150,000	180,000
MAXIMUM LOAD-kg	13 610	27 220	40 820	54 430	68 040	81 650
NO. PARTS OF LINE	7	8	9	10	11	12
MAXIMUM LOAD-LBS.	210,000	240,000	270,000	300,000	330,000	360,000
MAXIMUM LOAD-kg	95 250	108 860	122 470	136 080	149 690	163 290
NO. PARTS OF LINE	13	14	15	16	17	18
MAXIMUM LOAD-LBS.	390,000	420,000	450,000	480,000	510,000	551,200
MAXIMUM LOAD-kg	176 900	190 510	204 120	217 720	231 330	250 000
NO. PARTS OF LINE	19					
MAXIMUM LOAD-LBS.	600,000					
MAXIMUM LOAD-kg	272 100					

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WIRE ROPE SPECIFICATIONS	
HOIST LINE:	32 mm (1-1/4") - TOUGH NUFLEX - T S (19) 39 X 7 SPECIAL GRADE WIRE ROPE ORDINARY Z LAY - NON-ROTATING MINIMUM BREAKING STRENGTH 201,800 LBS. (899.0 kN) APPROX. WEIGHT = 3.47 LBS. PER FT. (5.16 kg/m)
OR	
	1-1/4" (32 mm) - BRIDON DYFORM - 34LR WIRE ROPE, RIGHT HAND REGULAR LAY MINIMUM BREAKING STRENGTH 196,300 LBS. (89 040 kg) MEC PART NO. 719391 APPROX. WEIGHT = 3.39 LBS. PER FT. (5.04 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)

WHIP LINE REEVING				
NO. PARTS OF LINE	1	2	3	4
MAXIMUM LOAD-LBS.	29,700	58,900	87,500	100,000
MAXIMUM LOAD-kg	13 470	26 720	39 690	45 300

WIRE ROPE SPECIFICATIONS	
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)

MAXIMUM SPOOLING CAPACITIES	
RIGHT REAR DRUM: (HOIST LINE)	32 mm (1-1/4") WIRE ROPE - 7 LAYERS - 1,840' (561m) 1,959' (597m) WITH 24-1/2" (622 mm) DIA. LAGGING
LEFT REAR DRUM: (WHIP LINE)	28 mm WIRE ROPE - 9 LAYERS - 1,196' (365m) 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.