

MANITOWOC ENGINEERING CO.

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



WIRE ROPE SPECIFICATIONS

LIFTCRANE - BOOM NO. 22EL

LUFFING JIB NO. 135 ATTACHED

888 SERIES 1

888 SERIES 2

WIRE ROPE LENGTHS - FRONT DRUM					
BOOM LENGTH		HOIST LINE FRONT DRUM		888 SERIES 1 MAXIMUM REQUIRED	888 SERIES 2 MAXIMUM REQUIRED
FT.	METERS	FT.	METERS	PARTS OF LINE	PARTS OF LINE
70	21.3	1175	358	13	14
80	24.4	1225	373	12	13
90	27.4	1275	389	11	12
100	30.5	1300	396	10	11
110	33.5	1300	396	9	10
120	36.6	1425	434	9	10
130	39.6	1425	434	9	9
140	42.7	1425	434	8	8
150	45.7	1425	434	7	7
160	48.8	1425	434	7	7
170	51.8	1425	434		6
180	54.9	1425	434		6
190	57.9	1425	434		4

NOTE: HOIST 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. SEE TABLES BELOW FOR AUXILIARY DRUM APPLICATION.

HOIST REEVING FOR MAIN LOAD BLOCK - FRONT DRUM							
NO. PARTS OF LINE	1	2	3	4	5	6	7
MAXIMUM LOAD-LBS.	29,500	59,000	88,500	118,000	147,500	177,000	206,500
MAXIMUM LOAD-kg	13 380	26 760	40 140	53 520	66 900	80 290	93 670
NO. PARTS OF LINE	8	9	10	11	12	13	14
MAXIMUM LOAD-LBS.	236,000	265,500	295,000	324,500	354,000	383,500	394,200
MAXIMUM LOAD-kg	107 050	120 430	133 810	147 190	160 570	173 950	178 800

WIRE ROPE LENGTHS - AUXILIARY DRUM					
BOOM LENGTH		HOIST LINE AUXILIARY DRUM		888 SERIES 1 MAXIMUM REQUIRED	888 SERIES 2 MAXIMUM REQUIRED
FT.	METERS	FT.	METERS	PARTS OF LINE	PARTS OF LINE
80	24.4	1300	396	14	14
90	27.4	1450	442	14	14
100	30.5	1600	488	14	14
110	33.5	1750	533	14	14
120	36.6	1900	579	14	14
130	39.6	1900	579	12	13
140	42.7	1900	579	11	12
150	45.7	1900	579	11	11
160	48.8	1900	579	10	10
170	51.8	1900	579		9
180	54.9	1900	579		8
190	57.9	1900	579		4

NOTE: HOIST 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 BLOCK TRAVEL WILL BE RESTRICTED WHEN HOIST LINE LENGTH EXCEEDS 1,600' (488m) USING AUXILIARY DRUM. AUXILIARY DRUM CAN NOT BE USED WITH 70' BOOM LENGTH.

CAPACITY CHART RESTRICTIONS WILL OCCUR WHEN AUXILIARY DRUM IS USED. MAXIMUM CAPACITY IS 280,000 LBS. (127 010 kg) WITH 14 PARTS LINE.

HOIST REEVING FOR MAIN LOAD BLOCK - AUXILIARY DRUM							
NO. PARTS OF LINE	1	2	3	4	5	6	7
MAXIMUM LOAD-LBS.	20,000	40,000	60,000	80,000	100,000	120,000	140,000
MAXIMUM LOAD-kg	9 070	18 140	27 220	36 290	45 360	54 430	63 500
NO. PARTS OF LINE	8	9	10	11	12	13	14
MAXIMUM LOAD-LBS.	160,000	180,000	200,000	220,000	240,000	260,000	280,000
MAXIMUM LOAD-kg	72 570	81 650	90 720	99 790	108 860	117 930	127 010

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WIRE ROPE SPECIFICATIONS	
<u>ROTATION RESISTANT WIRE ROPE - 5 :1 SAFETY FACTOR</u>	
HOIST LINE:	26 mm - 2 160 N/mm ² WIRE ROPE (REF. MEC PART NO. 719379) MINIMUM BREAKING STRENGTH REQUIRED = 147,500 LBS. (656.1 kN) APPROX. WEIGHT = 2.13 LBS. PER FT. (3.17 kg/m)
OR	
	1" - 2 160 N/mm ² WIRE ROPE (MEC PART NO. 719392) MINIMUM BREAKING STRENGTH = 153,800 LBS. (684.2 kN) APPROX. WEIGHT = 2.03 LBS. PER FT. (3.02 kg/m)
<u>OPTIONAL WIRE ROPE - 3.5 :1 SAFETY FACTOR</u>	
HOIST LINE:	26 mm - 6 X 25 FILLER WIRE, EXTRA IMPROVED PLOW STEEL, RIGHT REGULAR LAY, IWRC (MEC PART NO. 719387) MINIMUM BREAKING STRENGTH 108,600 LBS. (483.1 kN) APPROX. WEIGHT = 1.94 LBS. PER FT. (2.89 kg/m)
OR	
	1" - 6 X 25 FILLER WIRE, EXTRA IMPROVED PLOW STEEL, RIGHT REGULAR LAY, IWRC (MEC PART NO. 719060) MINIMUM BREAKING STRENGTH 103,400 LBS. (460 kN) APPROX. WEIGHT = 1.85 LBS. PER FT. (2.75 kg/m)

NOTE: BLOCK SPIN MAY OCCUR WITH 6 X 25 CONSTRUCTION WIRE ROPE UNDER CERTAIN OPERATING CONDITIONS.

MAXIMUM SPOOLING CAPACITIES	
FRONT DRUM: (HOIST LINE)	26 mm WIRE ROPE - 7 LAYERS - 1,609' (490m) 7 LAYERS - 1,716' (523m) WITH 21-1/4" (540 mm) DIA. LAGGING 1" WIRE ROPE - 7 LAYERS - 1,623' (495m) 7 LAYERS - 1,731' (528m) WITH 21-1/4" (540 mm) DIA. LAGGING
AUXILIARY DRUM: (HOIST LINE)	26 mm WIRE ROPE - 6 LAYERS - 1,323' (403m) 6 LAYERS - 1,415' (431m) WITH 21-1/4" (540 mm) DIA. LAGGING 1" WIRE ROPE - 6 LAYERS - 1,335' (407m) 6 LAYERS - 1,428' (435m) WITH 21-1/4" (540 mm) DIA. LAGGING
17' (5m) IS DEDUCTED FROM MAXIMUM SPOOLING CAPACITIES FOR 3 DEAD WRAPS PER DRUM OR LAGGING.	

NOTE: WHEN OPTIONAL LAGGINGS ARE USED, THE RECOMMENDED LAGGING FOR SPECIFIC WIRE ROPE DIA. MUST BE USED.

REFER TO DRUM AND LAGGING CHART NO. 6119-A.