

MANITOWOC ENGINEERING CO.

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



WIRE ROPE SPECIFICATIONS 4600 SERIES 5

LIFT CRANE - BOOM NO. 27B WITH OPEN THROAT TOP
INLINE OR OFFSET 4-1/2 DEGREES

WIRE ROPE LENGTHS									
BOOM OR BOOM AND JIB LENGTH		WHIP LINE FRONT DRUM				HOIST LINE REAR DRUM		MAXIMUM REQUIRED PARTS OF LINE	
		1 PART		2 PART					
FT.	METERS	FT.	METERS	FT.	METERS	FT.	METERS	TOP IN LINE	TOP OFFSET
80	24.4	440	134	520	158	1480	451	16	15
90	27.4	460	140	550	168	1650	503	16	12
100	30.5	480	146	580	177	1720	524	15	11
110	33.5	500	152	610	186	1770	539	14	10
120	36.6	520	158	640	195	1770	539	12	10
130	39.6	540	165	670	204	1770	539	11	9
140	42.7	560	171	700	213	1770	539	10	9
150	45.7	580	177	730	223	1770	539	9	9
160	48.8	600	183	760	232	1770	539	8	8
170	51.8	620	189	790	241	1770	539	8	8
180	54.9	640	195	820	250	1770	539	7	7
190	57.9	660	201	850	259	1770	539	7	7
200	61.0	680	207	880	268	1770	539	6	7
210	64.0	700	213	910	277	1770	539	6	6
220	67.1	720	219	940	287	1770	539	6	6
230	70.1	740	226	970	296	1770	539	5	5
240	73.2	760	232	1000	305	1770	539	5	5
250	76.2	780	238	1030	314	1770	539	5	5
260	79.2	800	244	1060	323	1770	539	4	4
270	82.3	820	250	1090	332	1770	539	4	4
280	85.3	840	256	1120	341	1770	539	4	4
290	88.4	860	262	1150	351	1770	539	4	4
300	91.4	880	268	1180	360	1770	539	4	4
310	94.5	900	274	1210	369	1770	539	3	3
320	97.5	920	280	1240	378				
330	100.6	940	287	1270	387				
340	103.6	960	293	1300	396				

NOTE: HOIST LINE AND WHIP LINE LENGTHS GIVEN IN TABLE WILL ALLOW BLOCK TRAVEL DOWN TO LEVEL OF ROLLER PATH. WHEN BLOCK TRAVEL BELOW ROLLER PATH 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 ROLLER PATH IS REQUIRED.

HOIST REEVING FOR MAIN LOAD BLOCK								
NO. PARTS OF LINE	1	2	3	4	5	6	7	8
MAXIMUM LOAD-LBS.	44,000	88,000	132,000	176,000	220,000	264,000	308,000	352,000
MAXIMUM LOAD-kg	19 960	39 920	59 870	79 830	99 790	119 750	139 710	159 660
NO. PARTS OF LINE	9	10	11	12	13	14	15	16
MAXIMUM LOAD-LBS.	396,000	440,000	484,000	528,000	572,000	616,000	660,000	700,000
MAXIMUM LOAD-kg	179 620	199 580	219 540	239 500	259 450	279 410	299 370	317 510
HOIST LINE: 1-1/4" (32 mm) - 6 X 31 WARRINGTON-SEALE, EXTRA EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MINIMUM BREAKING STRENGTH 175,800 LBS. (79 740 kg) APPROX. WEIGHT = 2.98 LBS. PER FT. (4.43 kg/m)								
WHIP LINE: 1-1/4" (32 mm) - 6 X 31 WARRINGTON-SEALE, EXTRA EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MINIMUM BREAKING STRENGTH 175,800 LBS. (79 740 kg) MAXIMUM LOAD = 44,000 LBS. PER LINE (19 960 kg) APPROX. WEIGHT = 2.98 LBS. PER FT. (4.43 kg/m)								

MAXIMUM SPOOLING CAPACITIES	
REAR DRUM: (HOIST LINE)	1-1/4" (32 mm) WIRE ROPE - 9 LAYERS - 2,879' (878m) 2,779' (847m) WITH RATCHET RING
FRONT DRUM: (WHIP LINE)	1-1/4" (32 mm) WIRE ROPE - 9 LAYERS - 2,879' (878m) 2,779' (847m) WITH RATCHET RING 3 LAYERS - 1,081' (329m) WITH 41-1/2" (1 054 mm) DIA. LAGGING 1,042' (318m) WITH 41-1/2" (1 054 mm) DIA. LAGGING AND WITH RATCHET RING
23' (7m) (34' (10m) WITH 41-1/2" (1 054 mm) DIA. LAGGING) IS DEDUCTED FROM MAXIMUM SPOOLING CAPACITIES FOR 3 DEAD WRAPS PER DRUM OR LAGGING.	

REFER TO DRUM AND LAGGING CHART NO. 6108.