

MANITOWOC ENGINEERING CO.

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



WIRE ROPE SPECIFICATIONS 3900W SERIES 2

LIFTCRANE - BOOM NO. 9A WITH OPEN THROAT TOP
INLINE OR OFFSET 4-1/2 DEGREES

WIRE ROPE LENGTHS									
BOOM OR BOOM AND JIB LENGTH		WHIP LINE LEFT DRUM				HOIST LINE RIGHT DRUM		MAXIMUM REQUIRED PARTS OF LINE	
		1 PART		2 PART					
FT.	METERS	FT.	METERS	FT.	METERS	FT.	METERS	TOP IN LINE	TOP OFFSET
60	18.3	145	44	205	62	775	236	11	8
70	21.3	165	50	235	72	895	273	11	8
80	24.4	185	56	265	81	945	288	10	7
90	27.4	205	62	295	90	945	288	9	7
100	30.5	225	69	325	99	945	288	8	6
110	33.5	245	75	355	108	945	288	7	6
120	36.6	265	81	385	117	995	303	7	6
130	39.6	285	87	415	126	995	303	6	5
140	42.7	305	93	445	136	1010	308	6	5
150	45.7	325	99	475	145	1010	308	5	5
160	48.8	345	105	505	154	1010	308	5	4
170	51.8	365	111	535	163	1025	312	5	4
180	54.9	385	117	565	172	1025	312	4	4
190	57.9	405	123	595	181	1025	312	4	4
200	61.0	425	130	625	191	1025	312	4	3
210	64.0	445	136	655	200	1025	312	3	3
220	67.1	465	142	685	209	1025	312	3	3
230	70.1	485	148	715	218	1025	312	3	3
240	73.2	505	154	745	227	1025	312	2	2
250	76.2	525	160	775	236	1025	312	2	2
260	79.2	545	166	805	245				
270	82.3	565	172	835	255				
280	85.3	585	178	---	---				
290	88.4	605	184	---	---				

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
MAXIMUM LOAD-LBS.	25,800	51,600	77,400	103,200	129,000	154,800
MAXIMUM LOAD-kg	11,700	23,410	35,110	46,810	58,510	70,220
NO. PARTS OF LINE	7	8	9	10	11	
MAXIMUM LOAD-LBS.	180,600	206,400	232,200	258,000	280,000	
MAXIMUM LOAD-kg	81,920	93,620	105,320	117,030	127,010	
HOIST LINE: 1" (25 mm) - 6 X 25 FILLER WIRE, EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MINIMUM BREAKING STRENGTH 103,400 LBS. (46,900 kg) APPROX. WEIGHT = 1.85 LBS. PER FT. (2.75 kg/m)						
WHIP LINE: 1" (25 mm) - 6 X 25 FILLER WIRE, IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MINIMUM BREAKING STRENGTH 89,800 LBS. (40,730 kg) MAXIMUM LOAD = 22,500 LBS. (10,210 kg) PER LINE APPROX. WEIGHT = 1.85 LBS. PER FT. (2.75 kg/m)						
AUXILIARY LINE: 7/8" (22 mm) - 6 X 25 FILLER WIRE, EXTRA IMPROVED PLOW STEEL, REGULAR LAY, IWRC. MINIMUM BREAKING STRENGTH 79,600 LBS. (36,110 kg) APPROX. WEIGHT = 1.42 LBS. PER FT. (2.11 kg/m)						
MAXIMUM LOAD ON REAR AUXILIARY DRUM IS 20,000 LBS. (9,070 kg) ON 1ST THREE LAYERS, 14,000 LBS. (6,350 kg) ON 4TH THRU 8TH LAYERS.						

MAXIMUM SPOOLING CAPACITIES	
RIGHT FRONT DRUM: (HOIST LINE)	1" (25 mm) WIRE ROPE - 8 LAYERS - 1,039' (317m) 855' (261m) WITH POWER LOWERING
LEFT FRONT DRUM: (WHIP LINE)	1" (25 mm) WIRE ROPE - 7 LAYERS - 661' (201m) WITH 21" (533 mm) DIA. LAGGING
REAR AUXILIARY DRUM: (AUXILIARY LINE)	7/8" (22 mm) WIRE ROPE - 8 LAYERS - 1,795' (547m) 1,672' (510m) WITH RATCHET RING
12' (4m) IS DEDUCTED FROM MAXIMUM SPOOLING CAPACITIES FOR 2 DEAD WRAPS PER DRUM OR LAGGING.	

REFER TO DRUM AND LAGGING CHART NO. 4867.