

MANITOWOC ENGINEERING CO.

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



LIFT CRANE CAPACITIES

**BOOM NO. 27 WITH OPEN THROAT TOP
36' RINGER ATTACHMENT ON SCREW JACKS
AND WITH OR WITHOUT TRAVEL ATTACHMENT
122,400 LB. CRANE COUNTERWEIGHT
135,000 LB. AUXILIARY COUNTERWEIGHT
85% TIPPING**

MEETS
ANSI B30.5
REQUIREMENTS

4100W

**4100W SERIES 1
RINGER SERIES 3**

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 85% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

UPPER BOOM POINT CAPACITY FOR LIFT CRANE SERVICE WITH SINGLE PART WHIP LINE OR COMBINATION OF TWO SINGLE PART LINES IS 28,300 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF UPPER BOOM POINT, JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT SHEAVES, IS CONSIDERED PART OF THE MAIN BOOM LOAD. BOOM IS NOT TO BE LOWERED BEYOND RADII WHERE COMBINED WEIGHTS ARE GREATER THAN RATED CAPACITY. WHERE NO CAPACITY IS SHOWN, OPERATION IS NOT INTENDED OR APPROVED.

MACHINE TO OPERATE ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH SCREW JACKS FULLY SET, ROLLER PATH LEVEL WITHIN A TOLERANCE OF 3/4" IN 36' ON BOOM LENGTHS THRU 300'; 3/8" IN 36' ON BOOMS OVER 300' AND PROPERLY SUPPORTED. IF AUXILIARY CRAWLERS ARE REMOVED THE TWO FRONT SCREW JACKS MUST BE ATTACHED PER SCREW JACK ASSEMBLY. REFER TO RIGGING NO. 50999 AND WIRE ROPE SPECIFICATION CHART NO. 6144. USE OF PROPER BLOCKING UNDER RING WILL PERMIT INCREASED CAPACITIES PER CHART NO. 6281-A2. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. BOOM ANGLE IS THE ANGLE BETWEEN HORIZONTAL AND CENTERLINE OF BOOM BUTT AND INSERTS AND IS AN INDICATION OF OPERATING RADIUS. IN ALL CASES, OPERATING RADIUS SHALL GOVERN CAPACITY. BOOM POINT ELEVATION IS VERTICAL DISTANCE FROM GROUND LEVEL TO CENTERLINE OF BOOM POINT SHAFT.

MACHINE EQUIPPED WITH 36' RINGER ATTACHMENT ON SCREW JACKS, 26'6" EXTENDIBLE CRAWLERS, 48" TREADS, 17' RETRACTABLE GANTRY, 130' MAST, 8 PART BOOM HOIST REEVING, FOUR 1-3/8" BOOM PENDANTS, 14" DIAMETER X 16" WIDTH BOOM HOIST DRUMS, 122,400 LB. CRANE COUNTERWEIGHT, 135,000 LB. AUXILIARY COUNTERWEIGHT AND WITH OR WITHOUT RINGER TRAVEL ATTACHMENT ASSEMBLY NO. 184541 OR NO. 184589.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED			DEDUCT FROM CAPACITIES WHEN UPPER BOOM POINT AND/OR HANGER BLOCK ARE ATTACHED		DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED		
BM. LGTH.	JIB NO. 122A	JIB NO. 123			JIB LGTH.	JIB NO. 122A	JIB NO. 123
340'	---	---	ONE SHEAVE POINT	1,200 LBS.	30'	---	3,000 LBS.
340'	100'	60'	TWO SHEAVE POINT	1,500 LBS.	40'	6,300 LBS.	3,600 LBS.
320'	140'	60'	BOOM POINT BLOCK	1,200 LBS.	50'	7,200 LBS.	4,200 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.					60'	9,600 LBS.	4,900 LBS.
					80'	11,300 LBS.	---
					100'	13,100 LBS.	---
					120'	14,900 LBS.	---
					140'	17,000 LBS.	---
JIB NO. 123 DEDUCTS INCLUDE JIB ADAPTOR.							

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
140	36	82.3	146.5	529,000*	160	40	81.8	166.1	488,000*	180	45	81.1	185.6	444,000*
	38	81.4	146.2	509,000*		45	80.0	165.3	447,000*		50	79.5	184.8	398,900
	40	80.6	145.9	490,000*		50	78.2	164.4	400,500		55	77.9	183.7	344,100
	45	78.5	145.0	449,000*		55	76.3	163.2	345,700		60	76.2	182.6	302,000
	50	76.4	143.9	401,700		60	74.5	161.9	303,600		65	74.6	181.3	268,700
	55	74.3	142.6	346,900		65	72.6	160.5	270,200		70	72.9	179.8	241,600
	60	72.2	141.1	304,800		70	70.7	158.8	243,200		75	71.3	178.2	219,200
	65	70.0	139.3	271,500		75	68.8	157.0	220,800		80	69.6	176.4	200,300
	70	67.8	137.4	244,400		80	66.9	154.9	201,900		85	67.9	174.5	184,300
	75	65.6	135.3	222,000		85	64.9	152.7	185,800		90	66.1	172.4	170,400
	80	63.3	132.9	203,100		90	62.9	150.2	172,000		95	64.4	170.1	158,300
	85	61.0	130.2	187,100		95	60.9	147.6	159,800		100	62.6	167.6	147,600
	90	58.7	127.3	173,200		100	58.8	144.7	149,200		105	60.8	164.9	138,200
	95	56.2	124.1	161,100		105	56.7	141.5	139,800		110	59.0	162.0	129,800
	100	53.7	120.6	150,400		110	54.5	138.1	131,300		115	57.1	158.9	122,200
	105	51.1	116.8	141,000		115	52.3	134.4	123,800		120	55.2	155.5	115,400
	110	48.5	112.6	132,600		120	50.0	130.3	116,900		125	53.2	151.9	109,200
	115	45.7	107.9	125,000		125	47.6	126.0	110,700		130	51.2	148.0	103,500
	120	42.7	102.8	118,200		130	45.2	121.2	105,100		135	49.1	143.8	98,300
	125	39.6	97.1	112,000		135	42.6	116.0	99,900		140	47.0	139.3	93,600
130	36.3	90.6	106,300	140	39.9	110.3	95,200	145	44.8	134.5	89,200			
135	32.7	83.4	101,100	145	37.0	104.0	90,800	150	42.4	129.2	85,100			
140	28.7	74.9	96,400	150	33.9	97.0	86,700	155	40.0	123.5	81,400			
				155	30.5	89.0	83,000	160	37.5	117.3	77,900			
				160	26.8	79.9	79,500	165	34.8	110.5	74,600			
								170	31.9	102.9	71,600			
								175	28.7	94.3	68,700			
								180	25.2	84.5	66,000			

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4100W

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RINGER SERIES 3

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	
200	45	82.0	205.8	437,200*	240	50	82.1	245.5	347,800*	260	220	38.7	170.4	43,900	
	50	80.6	205.1	397,700		55	80.9	244.8	340,000		225	36.9	164.0	42,300	
	55	79.1	204.2	342,900		60	79.7	243.9	297,900		230	35.1	157.1	40,700	
	60	77.6	203.1	300,800		65	78.5	243.0	264,600		235	33.1	149.7	39,200	
	65	76.2	202.0	267,500		70	77.3	241.9	237,500		240	31.0	141.7	37,800	
	70	74.7	200.7	240,400		75	76.1	240.7	215,100		245	28.8	133.0	36,400	
	75	73.2	199.2	218,000		80	74.8	239.4	196,300		250	26.4	123.5	35,100	
	80	71.7	197.6	199,100		85	73.6	238.0	180,200		255	23.8	112.8	33,900	
	85	70.2	195.9	183,100		90	72.3	236.5	166,300		260	20.9	100.7	32,700	
	90	68.6	194.0	169,200		95	71.1	234.8	154,200		280	60	81.2	284.5	273,300*
	95	67.1	192.0	157,100		100	69.8	233.0	143,600			65	80.2	283.7	261,700
	100	65.5	189.8	146,400		105	68.5	231.1	134,100			70	79.1	282.7	234,700
	105	63.9	187.5	137,000		110	67.2	229.1	125,700			75	78.1	281.7	212,300
	110	62.3	184.9	128,600		115	65.9	226.9	118,100			80	77.0	280.6	193,400
	115	60.7	182.2	121,000		120	64.6	224.6	111,300			85	76.0	279.4	177,400
	120	59.1	179.3	114,200		125	63.3	222.2	105,100			90	74.9	278.1	163,500
	125	57.4	176.2	108,000		130	62.0	219.6	99,400			95	73.9	276.7	151,400
	130	55.7	172.9	102,300		135	60.6	216.9	94,300			100	72.8	275.2	140,700
	135	53.9	169.4	97,100		140	59.2	214.0	89,500			105	71.7	273.6	131,300
	140	52.1	165.6	92,400		145	57.8	210.9	85,100			110	70.6	271.9	122,900
	145	50.3	161.6	88,000		150	56.4	207.7	81,100			115	69.5	270.1	115,300
	150	48.4	157.3	84,000		155	54.9	204.2	77,300			120	68.5	268.2	108,500
	155	46.4	152.7	80,200		160	53.5	200.6	73,800			125	67.3	266.2	102,300
	160	44.4	147.8	76,700		165	52.0	196.8	70,600			130	66.2	264.0	96,600
	165	42.3	142.5	73,400		170	50.4	192.8	67,500			135	65.1	261.8	91,400
170	40.2	136.8	70,400	175	48.9	188.6	64,700	140	64.0	259.4		86,700			
175	37.9	130.6	67,500	180	47.3	184.1	62,000	145	62.8	256.9		82,300			
180	35.5	123.9	64,900	185	45.6	179.3	59,500	150	61.7	254.3		78,300			
185	32.9	116.5	62,300	190	43.9	174.3	57,100	155	60.5	251.5		74,500			
190	30.2	108.4	60,000	195	42.2	168.9	54,900	160	59.3	248.6		71,000			
195	27.2	99.3	57,700	200	40.4	163.2	52,700	165	58.1	245.6		67,700			
200	23.9	88.8	55,600	205	38.5	157.2	50,700	170	56.9	242.4		64,700			
220	50	81.4	225.3	386,800*	210	36.5	150.7	48,800	175	55.7		239.0	61,800		
	55	80.1	224.5	341,400	215	34.5	143.6	47,000	180	54.4		235.6	59,200		
	60	78.8	223.6	299,300	220	32.3	136.1	45,300	185	53.2	231.9	56,600			
	65	77.4	222.5	266,000	225	30.0	127.8	43,700	190	51.9	228.1	54,300			
	70	76.1	221.3	238,900	230	27.5	118.7	42,100	195	50.6	224.0	52,000			
	75	74.8	220.0	216,500	235	24.8	108.5	40,600	200	49.2	219.8	49,900			
	80	73.4	218.6	197,700	240	21.8	96.9	39,200	205	47.9	215.4	47,900			
	85	72.0	217.1	181,600	55	81.6	265.0	309,200*	210	46.5	210.8	46,000			
	90	70.7	215.4	167,700	60	80.5	264.2	296,500	215	45.0	205.9	44,200			
	95	69.3	213.5	155,600	65	79.4	263.3	283,200	220	43.6	200.8	42,500			
	100	67.9	211.6	145,000	70	78.3	262.3	266,100	225	42.1	195.4	40,800			
	105	66.5	209.5	135,500	75	77.1	261.3	253,700	230	40.5	189.7	39,300			
	110	65.0	207.2	127,100	80	76.0	260.1	242,900	235	38.9	183.7	37,800			
	115	63.6	204.8	119,500	85	74.9	258.8	233,800	240	37.3	177.3	36,400			
	120	62.1	202.3	112,700	90	73.7	257.4	225,900	245	35.5	170.5	35,000			
	125	60.6	199.5	106,500	95	72.6	255.8	218,800	250	33.7	163.3	33,700			
	130	59.1	196.6	100,900	100	71.4	254.2	212,100	255	31.9	155.5	32,500			
	135	57.6	193.6	95,700	105	70.3	252.5	205,700	260	29.9	147.2	31,300			
	140	56.1	190.3	90,900	110	69.1	250.6	199,300	265	27.7	138.1	30,100			
	145	54.5	186.8	86,500	115	67.9	248.7	193,000	270	25.4	128.1	29,000			
	150	52.9	183.1	82,500	120	66.7	246.6	186,700	275	23.0	117.0	28,000			
	155	51.2	179.2	78,700	125	65.5	244.4	180,300	280	20.2	104.3	27,000			
	160	49.5	175.1	75,200	130	64.3	242.0	174,000							
	165	47.8	170.7	72,000	135	63.1	239.5	167,700							
	170	46.0	166.0	68,900	140	61.8	236.9	161,400							
175	44.2	161.0	66,100	145	60.5	234.2	155,100								
180	42.3	155.7	63,400	150	59.3	231.3	148,800								
185	40.3	150.0	60,900	155	58.0	228.2	142,500								
190	38.2	143.9	58,500	160	56.7	225.0	136,200								
195	36.1	137.3	56,300	165	55.3	221.7	130,000								
200	33.8	130.1	54,100	170	54.0	218.1	123,800								
205	31.4	122.3	52,100	175	52.6	214.4	117,600								
210	28.8	113.7	50,200	180	51.2	210.5	111,400								
215	25.9	104.0	48,400	185	49.8	206.3	105,200								
220	22.8	93.0	46,700	190	48.3	202.0	99,000								
				195	46.8	197.4	92,800								
				200	45.3	192.6	86,600								
				205	43.7	187.5	80,400								
				210	42.1	182.2	74,200								
				215	40.5	176.5	68,000								

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RINGER SERIES 3

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
300	65	80.8	303.9	234,900*	320	70	80.5	323.4	200,000*	340	75	80.2	342.8	166,000*
	70	79.9	303.1	233,300		75	79.6	322.5	199,500*		80	79.4	341.9	163,000*
	75	78.9	302.1	210,900		80	78.7	321.5	190,600		85	78.5	340.9	159,500*
	80	77.9	301.1	192,000		85	77.8	320.5	174,500		90	77.6	339.9	150,600*
	85	76.9	300.0	175,900		90	76.8	319.4	160,600		95	76.8	338.7	142,700*
	90	75.9	298.8	162,000		95	75.9	318.2	148,500		100	75.9	337.5	135,800*
	95	75.0	297.5	149,900		100	75.0	316.9	137,900		105	75.0	336.2	127,000
	100	74.0	296.1	139,300		105	74.1	315.5	128,400		110	74.2	334.9	118,600
	105	73.0	294.6	129,900		110	73.1	314.0	120,000		115	73.3	333.4	111,000
	110	72.0	293.0	121,400		115	72.2	312.4	112,400		120	72.4	331.8	104,200
	115	71.0	291.4	113,900		120	71.3	310.8	105,600		125	71.5	330.2	98,000
	120	70.0	289.6	107,000		125	70.3	309.1	99,400		130	70.6	328.5	92,300
	125	68.9	287.7	100,800		130	69.4	307.2	93,800		135	69.7	326.7	87,200
	130	67.9	285.7	95,200		135	68.4	305.3	88,600		140	68.8	324.8	82,400
	135	66.9	283.7	90,000		140	67.4	303.3	83,800		145	67.9	322.8	78,000
	140	65.8	281.5	85,300		145	66.5	301.1	79,500		150	67.0	320.7	74,000
	145	64.8	279.2	80,900		150	65.5	298.9	75,400		155	66.1	318.6	70,200
	150	63.7	276.8	76,800		155	64.5	296.6	71,600		160	65.2	316.3	66,700
	155	62.6	274.2	73,100		160	63.5	294.1	68,100		165	64.2	313.9	63,500
	160	61.6	271.6	69,600		165	62.5	291.6	64,900		170	63.3	311.5	60,400
	165	60.5	268.8	66,300		170	61.5	288.9	61,800		175	62.3	308.9	57,600
	170	59.4	265.9	63,300		175	60.4	286.1	59,000		180	61.4	306.2	54,900
	175	58.3	262.9	60,400		180	59.4	283.2	56,300		185	60.4	303.5	52,400
	180	57.1	259.7	57,700		185	58.4	280.2	53,800		190	59.4	300.6	50,000
	185	56.0	256.4	55,200		190	57.3	277.1	51,400					
	190	54.8	253.0	52,800		195	56.2	273.8	49,200					
	195	53.6	249.4	50,600		200	55.2	270.4	47,100					
	200	52.5	245.6	48,500		205	54.1	266.8	45,000					
	205	51.2	241.7	46,500		210	52.9	263.1	43,100					
	210	50.0	237.6	44,600		215	51.8	259.3	41,300					
	215	48.7	233.3	42,800		220	50.7	255.3	39,600					
	220	47.5	228.8	41,100		225	49.5	251.1	38,000					
	225	46.1	224.1	39,400		230	48.3	246.7	36,400					
	230	44.8	219.2	37,900		235	47.1	242.2	34,900					
	235	43.4	214.0	36,400		240	45.9	237.4	33,500					
	240	42.0	208.6	35,000										
	245	40.6	202.9	33,600										
	250	39.1	196.9	32,300										
	255	37.6	190.6	31,100										
	260	36.0	183.9	29,900										
	265	34.3	176.8	28,700										
	270	32.6	169.2	27,600										
	275	30.7	161.1	26,600										
	280	28.8	152.4	25,500										
	285	26.8	142.9	24,600										
	290	24.6	132.5	23,600										
	295	22.2	120.9	22,700										
	300	19.5	107.8	21,800										