

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

**BOOM NO. 27 WITH OPEN THROAT TOP
36' RINGER ATTACHMENT ON BLOCKING
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 LIFTCRANE 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 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. REFER TO RIGGING NO. 50999 AND WIRE ROPE SPECIFICATION CHART NO. 6144. 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 BLOCKING, 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 AND 135,000 LB. AUXILIARY COUNTERWEIGHT.

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	ONE SHEAVE POINT	TWO SHEAVE POINT	JIB LGTH.	JIB NO. 122A	JIB NO. 123
340'	---	---	1,200 LBS.	1,500 LBS.	30'	---	3,000 LBS.
340'	100'	60'	---	---	40'	6,300 LBS.	3,600 LBS.
320'	140'	60'	---	---	50'	7,200 LBS.	4,200 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START			BOOM POINT BLOCK	1,200 LBS.	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
140	36	82.3	146.5	600,000*
	38	81.4	146.2	600,000*
	40	80.6	145.9	582,700
	45	78.5	145.0	476,100
	50	76.4	143.9	401,700
	55	74.3	142.6	346,900
	60	72.2	141.1	304,800
	65	70.0	139.3	271,500
	70	67.8	137.4	244,400
	75	65.6	135.3	222,000
	80	63.3	132.9	203,100
	85	61.0	130.2	187,100
	90	58.7	127.3	173,200
	95	56.2	124.1	161,100
	100	53.7	120.6	150,400
	105	51.1	116.8	141,000
	110	48.5	112.6	132,600
	115	45.7	107.9	125,000
120	42.7	102.8	118,200	
125	39.6	97.1	112,000	
130	36.3	90.6	106,300	
135	32.7	83.4	101,100	
140	28.7	74.9	96,400	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
160	40	81.8	166.1	551,900*
	45	80.0	165.3	474,900
	50	78.2	164.4	400,500
	55	76.3	163.2	345,700
	60	74.5	161.9	303,600
	65	72.6	160.5	270,200
	70	70.7	158.8	243,200
	75	68.8	157.0	220,800
	80	66.9	154.9	201,900
	85	64.9	152.7	185,800
	90	62.9	150.2	172,000
	95	60.9	147.6	159,800
	100	58.8	144.7	149,200
	105	56.7	141.5	139,800
	110	54.5	138.1	131,300
	115	52.3	134.4	123,800
	120	50.0	130.3	116,900
	125	47.6	126.0	110,700
130	45.2	121.2	105,100	
135	42.6	116.0	99,900	
140	39.9	110.3	95,200	
145	37.0	104.0	90,800	
150	33.9	97.0	86,700	
155	30.5	89.0	83,000	
160	26.8	79.9	79,500	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
180	45	81.1	185.6	473,300
	50	79.5	184.8	398,900
	55	77.9	183.7	344,100
	60	76.2	182.6	302,000
	65	74.6	181.3	268,700
	70	72.9	179.8	241,600
	75	71.3	178.2	219,200
	80	69.6	176.4	200,300
	85	67.9	174.5	184,300
	90	66.1	172.4	170,400
	95	64.4	170.1	158,300
	100	62.6	167.6	147,600
	105	60.8	164.9	138,200
	110	59.0	162.0	129,800
	115	57.1	158.9	122,200
	120	55.2	155.5	115,400
	125	53.2	151.9	109,200
	130	51.2	148.0	103,500
135	49.1	143.8	98,300	
140	47.0	139.3	93,600	
145	44.8	134.5	89,200	
150	42.4	129.2	85,100	
155	40.0	123.5	81,400	
160	37.5	117.3	77,900	
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

**4100W SERIES 1
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	210	42.1	182.2	47,400	
	50	80.6	205.1	397,700		55	80.9	244.8	340,000		215	40.5	176.5	45,600	
	55	79.1	204.2	342,900		60	79.7	243.9	297,900		220	38.7	170.4	43,900	
	60	77.6	203.1	300,800		65	78.5	243.0	264,600		225	36.9	164.0	42,300	
	65	76.2	202.0	267,500		70	77.3	241.9	237,500		230	35.1	157.1	40,700	
	70	74.7	200.7	240,400		75	76.1	240.7	215,100		235	33.1	149.7	39,200	
	75	73.2	199.2	218,000		80	74.8	239.4	196,300		240	31.0	141.7	37,800	
	80	71.7	197.6	199,100		85	73.6	238.0	180,200		245	28.8	133.0	36,400	
	85	70.2	195.9	183,100		90	72.3	236.5	166,300		250	26.4	123.5	35,100	
	90	68.6	194.0	169,200		95	71.1	234.8	154,200		255	23.8	112.8	33,900	
	95	67.1	192.0	157,100		100	69.8	233.0	143,600		260	20.9	100.7	32,700	
	100	65.5	189.8	146,400		105	68.5	231.1	134,100		280	60	81.2	284.5	273,300*
	105	63.9	187.5	137,000		110	67.2	229.1	125,700			65	80.2	283.7	261,700
	110	62.3	184.9	128,600		115	65.9	226.9	118,100			70	79.1	282.7	234,700
	115	60.7	182.2	121,000		120	64.6	224.6	111,300			75	78.1	281.7	212,300
	120	59.1	179.3	114,200		125	63.3	222.2	105,100			80	77.0	280.6	193,400
	125	57.4	176.2	108,000		130	62.0	219.6	99,400			85	76.0	279.4	177,400
	130	55.7	172.9	102,300		135	60.6	216.9	94,300			90	74.9	278.1	163,500
	135	53.9	169.4	97,100		140	59.2	214.0	89,500			95	73.9	276.7	151,400
	140	52.1	165.6	92,400		145	57.8	210.9	85,100			100	72.8	275.2	140,700
145	50.3	161.6	88,000	150	56.4	207.7	81,100	105	71.7	273.6		131,300			
150	48.4	157.3	84,000	155	54.9	204.2	77,300	110	70.6	271.9	122,900				
155	46.4	152.7	80,200	160	53.5	200.6	73,800	115	69.5	270.1	115,300				
160	44.4	147.8	76,700	165	52.0	196.8	70,600	120	68.5	268.2	108,500				
165	42.3	142.5	73,400	170	50.4	192.8	67,500	125	67.3	266.2	102,300				
170	40.2	136.8	70,400	175	48.9	188.6	64,700	130	66.2	264.0	96,600				
175	37.9	130.6	67,500	180	47.3	184.1	62,000	135	65.1	261.8	91,400				
180	35.5	123.9	64,900	185	45.6	179.3	59,500	140	64.0	259.4	86,700				
185	32.9	116.5	62,300	190	43.9	174.3	57,100	145	62.8	256.9	82,300				
190	30.2	108.4	60,000	195	42.2	168.9	54,900	150	61.7	254.3	78,300				
195	27.2	99.3	57,700	200	40.4	163.2	52,700	155	60.5	251.5	74,500				
200	23.9	88.8	55,600	205	38.5	157.2	50,700	160	59.3	248.6	71,000				
220	50	81.4	225.3	386,800*	210	36.5	150.7	48,800	165	58.1	245.6	67,700			
	55	80.1	224.5	341,400	215	34.5	143.6	47,000	170	56.9	242.4	64,700			
	60	78.8	223.6	299,300	220	32.3	136.1	45,300	175	55.7	239.0	61,800			
	65	77.4	222.5	266,000	225	30.0	127.8	43,700	180	54.4	235.6	59,200			
	70	76.1	221.3	238,900	230	27.5	118.7	42,100	185	53.2	231.9	56,600			
	75	74.8	220.0	216,500	235	24.8	108.5	40,600	190	51.9	228.1	54,300			
	80	73.4	218.6	197,700	240	21.8	96.9	39,200	195	50.6	224.0	52,000			
	85	72.0	217.1	181,600	260	55	81.6	265.0	309,200*	200	49.2	219.8	49,900		
	90	70.7	215.4	167,700		60	80.5	264.2	296,500	205	47.9	215.4	47,900		
	95	69.3	213.5	155,600		65	79.4	263.3	263,200	210	46.5	210.8	46,000		
	100	67.9	211.6	145,000		70	78.3	262.3	236,100	215	45.0	205.9	44,200		
	105	66.5	209.5	135,500		75	77.1	261.3	213,700	220	43.6	200.8	42,500		
	110	65.0	207.2	127,100		80	76.0	260.1	194,900	225	42.1	195.4	40,800		
	115	63.6	204.8	119,500		85	74.9	258.8	178,800	230	40.5	189.7	39,300		
	120	62.1	202.3	112,700		90	73.7	257.4	164,900	235	38.9	183.7	37,800		
	125	60.6	199.5	106,500		95	72.6	255.8	152,800	240	37.3	177.3	36,400		
	130	59.1	196.6	100,900		100	71.4	254.2	142,100	245	35.5	170.5	35,000		
	135	57.6	193.6	95,700	105	70.3	252.5	132,700	250	33.7	163.3	33,700			
	140	56.1	190.3	90,900	110	69.1	250.6	124,300	255	31.9	155.5	32,500			
	145	54.5	186.8	86,500	115	67.9	248.7	116,700	260	29.9	147.2	31,300			
150	52.9	183.1	82,500	120	66.7	246.6	109,900	265	27.7	138.1	30,100				
155	51.2	179.2	78,700	125	65.5	244.4	103,700	270	25.4	128.1	29,000				
160	49.5	175.1	75,200	130	64.3	242.0	98,000	275	23.0	117.0	28,000				
165	47.8	170.7	72,000	135	63.1	239.5	92,900	280	20.2	104.3	27,000				
170	46.0	166.0	68,900	140	61.8	236.9	88,100								
175	44.2	161.0	66,100	145	60.5	234.2	83,700								
180	42.3	155.7	63,400	150	59.3	231.3	79,700								
185	40.3	150.0	60,900	155	58.0	228.2	75,900								
190	38.2	143.9	58,500	160	56.7	225.0	72,400								
195	36.1	137.3	56,300	165	55.3	221.7	69,200								
200	33.8	130.1	54,100	170	54.0	218.1	66,100								
205	31.4	122.3	52,100	175	52.6	214.4	63,300								
210	28.8	113.7	50,200	180	51.2	210.5	60,600								
215	25.9	104.0	48,400	185	49.8	206.3	58,100								
220	22.8	93.0	46,700	190	48.3	202.0	55,700								
				195	46.8	197.4	53,400								
				200	45.3	192.6	51,300								
				205	43.7	187.5	49,300								

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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			
3003	65	80.8	303.9	234,900*	3023	70	80.5	323.4	200,000*	3040	75	80.2	342.8	166,000*			
	70	79.9	303.1	233,300		75	79.6	322.5	193,900*		80	79.4	341.9	163,000*			
	75	78.9	302.1	210,900		80	78.7	321.5	181,500*		85	78.5	340.9	159,500*			
	80	77.9	301.1	192,000		85	77.8	320.5	170,700*		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														