

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
275,000 LB. AUXILIARY COUNTERWEIGHT
86% 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 275,000 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			JIB LGTH.	JIB NO.	122A	JIB NO. 123
340'	---	---	---	ONE SHEAVE POINT	1,200 LBS.	30'	---	---	3,000 LBS.
340'	140'	60'	---	TWO SHEAVE POINT	1,500 LBS.	40'	6,300 LBS.	---	3,600 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.				BOOM POINT BLOCK	1,200 LBS.	50'	7,200 LBS.	---	4,200 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	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	600,000*	160	40	81.8	166.1	551,900*	180	45	81.1	185.6	493,800*
	38	81.4	146.2	600,000*		45	80.0	165.3	550,700*		50	79.5	184.8	493,000*
	40	80.6	145.9	600,000*		50	78.2	164.4	545,800		55	77.9	183.7	470,300
	45	78.5	145.0	600,000*		55	76.3	163.2	471,900		60	76.2	182.6	413,600
	50	76.4	143.9	547,100		60	74.5	161.9	415,200		65	74.6	181.3	368,600
	55	74.3	142.6	473,100		65	72.6	160.5	370,200		70	72.9	179.8	332,200
	60	72.2	141.1	416,400		70	70.7	158.8	333,700		75	71.3	178.2	302,000
	65	70.0	139.3	371,400		75	68.8	157.0	303,500		80	69.6	176.4	276,500
	70	67.8	137.4	335,000		80	66.9	154.9	278,100		85	67.9	174.5	254,900
	75	65.6	135.3	304,800		85	64.9	152.7	256,400		90	66.1	172.4	236,100
	80	63.3	132.9	279,300		90	62.9	150.2	237,700		95	64.4	170.1	219,800
	85	61.0	130.2	257,700		95	60.9	147.6	221,400		100	62.6	167.6	205,500
	90	58.7	127.3	238,900		100	58.8	144.7	207,100		105	60.8	164.9	192,800
	95	56.2	124.1	222,600		105	56.7	141.5	194,300		110	59.0	162.0	181,400
	100	53.7	120.6	208,300		110	54.5	138.1	183,000		115	57.1	158.9	171,200
160	105	51.1	116.8	195,600	180	115	52.3	134.4	172,800	200	120	55.2	155.5	162,000
	110	48.5	112.6	184,200		120	50.0	130.3	163,600		125	53.2	151.9	153,600
	115	45.7	107.9	172,800*		125	47.6	126.0	155,200		130	51.2	148.0	146,000
	120	42.7	102.8	160,700*		130	45.2	121.2	147,600		135	49.1	143.8	139,000
	125	39.6	97.1	149,500*		135	42.6	116.0	140,600		140	47.0	139.3	132,600
	130	36.3	90.6	138,900*		140	39.9	110.3	134,200		145	44.8	134.5	126,700
	135	32.7	83.4	128,900*		145	37.0	104.0	127,800*		150	42.4	129.2	121,300
	140	28.7	74.9	119,200*		150	33.9	97.0	119,700*		155	40.0	123.5	116,200
						155	30.5	89.0	111,800*		160	37.5	117.3	111,500
						160	26.8	79.9	104,100*		165	34.8	110.5	107,100
180					200					220	170	31.9	102.9	102,400*
											175	28.7	94.3	96,800*
											180	25.2	84.5	90,600*

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122,400 LB. CRANE COUNTERWEIGHT
275,000 LB. AUXILIARY COUNTERWEIGHT
85% TIPPING

MEETS
ANSI B30.5
REQUIREMENTS

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	72,300
	50	80.6	205.1	435,600*		55	80.9	244.8	345,900*		215	40.5	176.5	69,900
	55	79.1	204.2	433,800*		60	79.7	243.9	343,800*		220	38.7	170.4	67,600
	60	77.6	203.1	412,400		65	78.5	243.0	332,200*		225	36.9	164.0	65,400
	65	76.2	202.0	367,400		70	77.3	241.9	305,500*		230	35.1	157.1	63,300
	70	74.7	200.7	331,000		75	76.1	240.7	283,200*		235	33.1	149.7	61,300
	75	73.2	199.2	300,800		80	74.8	239.4	264,000*		240	31.0	141.7	59,300
	80	71.7	197.6	275,300		85	73.6	238.0	247,300*		245	28.8	133.0	57,500
	85	70.2	195.9	253,700		90	72.3	236.5	232,100		250	26.4	123.5	55,800
	90	68.6	194.0	235,000		95	71.1	234.8	215,800		255	23.8	112.8	53,400*
	95	67.1	192.0	218,600		100	69.8	233.0	201,400		260	20.9	100.7	50,900*
	100	65.5	189.8	204,300		105	68.5	231.1	188,700		60	81.2	284.5	273,300*
	105	63.9	187.5	191,600		110	67.2	229.1	177,300		65	80.2	283.7	270,000*
	110	62.3	184.9	180,200		115	65.9	226.9	167,100		70	79.1	282.7	262,500*
	115	60.7	182.2	170,000		120	64.6	224.6	157,900		75	78.1	281.7	243,700*
	120	59.1	179.3	160,800		125	63.3	222.2	149,600		80	77.0	280.6	227,700*
	125	57.4	176.2	152,400		130	62.0	219.6	142,000		85	76.0	279.4	213,900*
	130	55.7	172.9	144,800		135	60.6	216.9	135,000		90	74.9	278.1	201,800*
	135	53.9	169.4	137,800		140	59.2	214.0	128,600		95	73.9	276.7	191,100*
	140	52.1	165.6	131,400		145	57.8	210.9	122,700		100	72.8	275.2	181,600*
220	145	50.3	161.6	125,500		150	56.4	207.7	117,200	280	105	71.7	273.6	172,900*
	150	48.4	157.3	120,100		155	54.9	204.2	112,100		110	70.6	271.9	165,100*
	155	46.4	152.7	115,000		160	53.5	200.6	107,400		115	69.5	270.1	157,900*
	160	44.4	147.8	110,300		165	52.0	196.8	103,000		120	68.5	268.2	151,300*
	165	42.3	142.5	105,900		170	50.4	192.8	98,900		125	67.3	266.2	145,200*
	170	40.2	136.8	101,800		175	48.9	188.6	95,100		130	66.2	264.0	139,100
	175	37.9	130.6	97,900		180	47.3	184.1	91,500		135	65.1	261.8	132,100
	180	35.5	123.9	94,300		185	45.6	179.3	88,100		140	64.0	259.4	125,700
	185	32.9	116.5	90,900		190	43.9	174.3	84,900		145	62.8	256.9	119,800
	190	30.2	108.4	87,700		195	42.2	168.9	81,800		150	61.7	254.3	114,400
	195	27.2	99.3	83,700*		200	40.4	163.2	79,000		155	60.5	251.5	109,300
	200	23.9	88.8	79,300*		205	38.5	157.2	76,300		160	59.3	248.6	104,600
	50	81.4	225.3	386,800*		210	36.5	150.7	73,700		165	58.1	245.6	100,200
	55	80.1	224.5	384,800*		215	34.5	143.6	71,300		170	56.9	242.4	96,100
	60	78.8	223.6	382,600*		220	32.3	136.1	69,000		175	55.7	239.0	92,200
	65	77.4	222.5	360,900*		225	30.0	127.8	66,800		180	54.4	235.6	88,600
	70	76.1	221.3	329,500		230	27.5	118.7	64,700		185	53.2	231.9	85,200
	75	74.8	220.0	299,300		235	24.8	108.5	62,000*		190	51.9	228.1	82,000
	80	73.4	218.6	273,900		240	21.8	96.9	59,100*		195	50.6	224.0	79,000
	85	72.0	217.1	252,200		55	81.6	265.0	309,200*		200	49.2	219.8	76,200
	90	70.7	215.4	233,500		60	80.5	264.2	307,400*		205	47.9	215.4	73,500
	95	69.3	213.5	217,200		65	79.4	263.3	305,300*		210	46.5	210.8	70,900
260	100	67.9	211.6	202,800		70	78.3	262.3	282,500*		215	45.0	205.9	68,500
	105	66.5	209.5	190,100		75	77.1	261.3	262,200*		220	43.6	200.8	66,100
	110	65.0	207.2	178,700		80	76.0	260.1	244,900*		225	42.1	195.4	63,900
	115	63.6	204.8	168,500		85	74.9	258.8	229,900*		230	40.5	189.7	61,800
	120	62.1	202.3	159,300		90	73.7	257.4	216,700*		235	38.9	183.7	59,800
	125	60.6	199.5	151,000		95	72.6	255.8	205,000*		240	37.3	177.3	57,900
	130	59.1	196.6	143,400		100	71.4	254.2	194,500*		245	35.5	170.5	56,100
	135	57.6	193.6	136,400		105	70.3	252.5	185,000*		250	33.7	163.3	54,300
	140	56.1	190.3	130,000*		110	69.1	250.6	175,900		255	31.9	155.5	52,700
	145	54.5	186.8	124,100		115	67.9	248.7	165,700		260	29.9	147.2	51,100
	150	52.9	183.1	118,600		120	66.7	246.6	156,500		265	27.7	138.1	49,500
	155	51.2	179.2	113,500		125	65.5	244.4	148,200		270	25.4	128.1	48,000*
	160	49.5	175.1	108,800		130	64.3	242.0	140,500		275	23.0	117.0	45,700*
	165	47.8	170.7	104,400		135	63.1	239.5	133,600		280	20.2	104.3	43,500*
	170	46.0	166.0	100,300		140	61.8	236.9	127,200					
	175	44.2	161.0	96,500		145	60.5	234.2	121,300					
	180	42.3	155.7	92,900		150	59.3	231.3	115,800					
	185	40.3	150.0	89,500		155	58.0	228.2	110,700					
	190	38.2	143.9	86,300		160	56.7	225.0	106,000					
	195	36.1	137.3	83,300		165	55.3	221.7	101,600					
	200	33.8	130.1	80,400		170	54.0	218.1	97,500					
	205	31.4	122.3	77,700		175	52.6	214.4	93,700					
	210	28.8	113.7	75,100		180	51.2	210.5	90,100					
	215	25.9	104.0	72,000*		185	49.8	206.3	86,700					
	220	22.8	93.0	68,600*		190	48.3	202.0	83,500					
						195	46.8	197.4	80,400					
						200	45.3	192.6	77,600					
						205	43.7	187.5	74,900					

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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	234,000*		75	79.6	322.5	199,500*		80	79.4	341.9	163,000*
	75	78.9	302.1	227,500*		80	78.7	321.5	199,200*		85	78.5	340.9	159,500*
	80	77.9	301.1	212,500*		85	77.8	320.5	187,000*		90	77.6	339.9	150,600*
	85	76.9	300.0	199,600*		90	76.8	319.4	170,600*		95	76.8	338.7	142,700*
	90	75.9	298.8	188,300*		95	75.9	318.2	160,500*		100	75.9	337.5	135,800*
	95	75.0	297.5	178,400*		100	75.0	316.9	150,000*		105	75.0	336.2	129,500*
	100	74.0	296.1	169,500*		105	74.1	315.5	138,900*		110	74.2	334.9	123,800*
	105	73.0	294.6	161,500*		110	73.1	314.0	132,800*		115	73.3	333.4	118,600*
	110	72.0	293.0	154,300*		115	72.2	312.4	127,300*		120	72.4	331.8	113,800*
	115	71.0	291.4	147,700*		120	71.3	310.8	122,200*		125	71.5	330.2	109,400*
	120	70.0	289.6	141,700*		125	70.3	309.1	117,500*		130	70.6	328.5	105,300*
	125	68.9	287.7	136,100*		130	69.4	307.2	113,100*		135	69.7	326.7	101,500*
	130	67.9	285.7	130,900*		135	68.4	305.3	109,100*		140	68.8	324.8	98,000*
	135	66.9	283.7	126,000*		140	67.4	303.3	105,200*		145	67.9	322.8	94,700*
	140	65.8	281.5	121,500*		145	66.5	301.1	101,600*		150	67.0	320.7	91,500*
	145	64.8	279.2	117,200*		150	65.5	298.9	98,000*		155	66.1	318.6	88,500*
	150	63.7	276.8	113,000*		155	64.5	296.6	95,000*		160	65.2	316.3	85,800*
	155	62.6	274.2	107,900*		160	63.5	294.1	92,000*		165	64.2	313.9	83,100*
	160	61.6	271.6	103,200*		165	62.5	291.6	89,000*		170	63.3	311.5	80,500*
	165	60.5	268.8	98,800*		170	61.5	288.9	86,300*		175	62.3	308.9	78,100*
	170	59.4	265.9	94,700*		175	60.4	286.1	83,600*		180	61.4	306.2	75,800*
	175	58.3	262.9	90,800*		180	59.4	283.2	81,100*		185	60.4	303.5	73,600*
	180	57.1	259.7	87,200*		185	58.4	280.2	78,600*		190	59.4	300.6	71,400*
	185	56.0	256.4	83,800*		190	57.3	277.1	76,200*					
	190	54.8	253.0	80,600*		195	56.2	273.8	73,900*					
	195	53.6	249.4	77,600*		200	55.2	270.4	71,800*					
	200	52.5	245.6	74,700*		205	54.1	266.8	69,700*					
	205	51.2	241.7	72,000*		210	52.9	263.1	67,600*					
	210	50.0	237.6	69,500*		215	51.8	259.3	65,600*					
	215	48.7	233.3	67,000*		220	50.7	255.3	63,300*					
	220	47.5	228.8	64,700*		225	49.5	251.1	61,100*					
	225	46.1	224.1	62,500*		230	48.3	246.7	59,000*					
	230	44.8	219.2	60,400*		235	47.1	242.2	57,000*					
	235	43.4	214.0	58,400*		240	45.9	237.4	55,100*					
	240	42.0	208.6	56,500*										
	245	40.6	202.9	54,700*										
	250	39.1	196.9	52,900*										
	255	37.6	190.6	51,200*										
	260	36.0	183.9	49,600*										
	265	34.3	176.8	48,100*										
	270	32.6	169.2	46,600*										
	275	30.7	161.1	45,200*										
	280	28.8	152.4	43,800*										
	285	26.8	142.9	42,500*										
	290	24.6	132.5	40,800*										
	295	22.2	120.9	38,900*										
	300	19.5	107.8	36,900*										