

LIFTCRANE BOOM CAPACITIES

4100W
4100W SERIES 1
RINGER SERIES 3

BOOM NO. 27 WITH OPEN THROAT TOP
36' RINGER ATTACHMENT ON BLOCKING
122,400 LB. CRANE COUNTERWEIGHT
135,000 LB. AUXILIARY COUNTERWEIGHT
BARGE MOUNT - 1/2 DEGREE THRU 2 DEGREE MACHINE LIST
85% TIPPING - 360 DEGREE RATING

CAPACITIES ARE FOR A CRAWLER MACHINE WHEN OPERATING ON A BARGE. MACHINE SHALL BE POSITIVELY SECURED TO PREVENT SHIFTING. 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 MAIN BOOM CAPACITY.

WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM POINT SHEAVES, IS CONSIDERED PART OF 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 WITH ROLLER PATH PROPERLY SUPPORTED AND MACHINE LIST NOT TO EXCEED DEGREES NOTED. 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 HORIZONTAL DISTANCE FROM AXIS OF ROTATION AT BARGE DECK TO CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. BOOM ANGLE IS 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 BARGE DECK 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 COUNTERWEIGHT, AND 135,000 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTHS LIFTED UNASSISTED	
LIST	BOOM LENGTH
1/2 DEGREE	280'
1 DEGREE	260'
2 DEGREE	240'
LOAD BLOCK, HOOK AND WEIGHT BALL ON BARGE AT START. JIB IS NOT TO BE USED ON MACHINE WHILE OPERATING ON A BARGE.	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS	BOOM CAPACITY 1 DEGREE LIST POUNDS	BOOM CAPACITY 2 DEGREE LIST POUNDS
1 4 0	38	81.4	146.2	488,700*		
	40	80.6	145.9	488,700*		
	45	78.5	145.0	462,600	435,800*	341,600*
	50	76.4	143.9	392,600	376,400	305,700*
	55	74.3	142.6	340,400	327,900	276,300*
	60	72.2	141.1	299,900	290,000	251,800*
	65	70.0	139.3	267,700	259,600	231,100*
	70	67.8	137.4	241,400	234,700	213,400*
	75	65.6	135.3	219,500	213,800	198,000*
	80	63.3	132.9	201,000	196,200	184,500*
	85	61.0	130.2	185,200	181,000	172,700*
	90	58.7	127.3	171,500	167,900	161,000
	95	56.2	124.1	159,500	156,400	150,300
	100	53.7	120.6	149,000	146,200	140,800
	105	51.1	116.8	139,600	137,200	132,400
	110	48.5	112.6	131,200	129,100	124,800
	115	45.7	107.9	123,700	121,800	118,000
	120	42.7	102.8	116,900	115,200	111,800
	125	39.6	97.1	110,700	109,200	106,200
	130	36.3	90.6	105,100	103,700	101,000
	135	32.7	83.4	99,900	98,700	96,300
	140	28.7	74.9	95,200	94,100	92,000

MANITOWOC ENGINEERING CO.

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



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4100W

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122,400 LB. CRANE COUNTERWEIGHT

135,000 LB. AUXILIARY COUNTERWEIGHT

BARGE MOUNT - 1/2 DEGREE THRU 2 DEGREE MACHINE LIST

85% TIPPING - 360 DEGREE RATING

4100W SERIES 1
RINGER SERIES 3

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS	BOOM CAPACITY 1 DEGREE LIST POUNDS	BOOM CAPACITY 2 DEGREE LIST POUNDS
160	45	80.0	165.3	431,400*	381,400*	310,000*
	50	78.2	164.4	389,100	371,100	304,100*
	55	76.3	163.2	337,400	323,500	274,800*
	60	74.5	161.9	297,300	286,200	250,300*
	65	72.6	160.5	265,300	256,200	229,600*
	70	70.7	158.8	239,100	231,600	211,900*
	75	68.8	157.0	217,400	211,000	196,500*
	80	66.9	154.9	199,000	193,600	183,100*
	85	64.9	152.7	183,200	178,600	169,700
	90	62.9	150.2	169,600	165,500	157,800
	95	60.9	147.6	157,700	154,100	147,300
	100	58.8	144.7	147,200	144,000	138,000
	105	56.7	141.5	137,900	135,100	129,700
	110	54.5	138.1	129,500	127,000	122,200
	115	52.3	134.4	122,000	119,800	115,400
	120	50.0	130.3	115,200	113,200	109,300
	125	47.6	126.0	109,100	107,300	103,700
	130	45.2	121.2	103,500	101,800	98,600
	135	42.6	116.0	98,300	96,800	93,900
	140	39.9	110.3	93,600	92,200	89,600
180	145	37.0	104.0	89,200	88,000	85,600
	150	33.9	97.0	85,200	84,100	81,900
	155	30.5	89.0	81,400	80,400	78,500
	160	26.8	79.9	77,900	77,000	75,300
	45	81.1	185.6	376,900*		
	50	79.5	184.8	376,500*	331,700*	268,000*
	55	77.9	183.7	333,700	318,500	267,600*
	60	76.2	182.6	294,000	281,800	248,000*
	65	74.6	181.3	262,200	252,200	227,300*
	70	72.9	179.8	236,200	227,900	209,600*
	75	71.3	178.2	214,600	207,600	194,300*
	80	69.6	176.4	196,300	190,300	179,100
	85	67.9	174.5	180,700	175,500	165,700
	90	66.1	172.4	167,100	162,600	154,000
	95	64.4	170.1	155,200	151,200	143,700
	100	62.6	167.6	144,800	141,200	134,500
	105	60.8	164.9	135,500	132,300	126,300
	110	59.0	162.0	127,200	124,300	118,900
	115	57.1	158.9	119,700	117,200	112,300
	120	55.2	155.5	112,900	110,600	106,200
	125	53.2	151.9	106,800	104,700	100,700
	130	51.2	148.0	101,200	99,300	95,600
	135	49.1	143.8	96,000	94,300	91,000
	140	47.0	139.3	91,300	89,700	86,700
	145	44.8	134.5	86,900	85,500	82,700
	150	42.4	129.2	82,900	81,600	79,000
	155	40.0	123.5	79,200	78,000	75,600
	160	37.5	117.3	75,700	74,600	72,400
	165	34.8	110.5	72,400	71,400	69,400
	170	31.9	102.9	69,400	68,500	66,700
	175	28.7	94.3	66,500	65,700	64,100
	180	25.2	84.5	63,900	63,100	61,700

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 85% TIPPING - 360 DEGREE RATING

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RINGER SERIES 3

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS	BOOM CAPACITY 1 DEGREE LIST POUNDS	BOOM CAPACITY 2 DEGREE LIST POUNDS
200	50	80.6	205.1	332,100*	291,800*	
	55	79.1	204.2	330,900	291,200*	234,300*
	60	77.6	203.1	291,500	278,200	233,800*
	65	76.2	202.0	260,000	249,100	225,900*
	70	74.7	200.7	234,200	225,100	208,200*
	75	73.2	199.2	212,700	205,000	191,000
	80	71.7	197.6	194,500	187,900	175,800
	85	70.2	195.9	178,900	173,200	162,700
	90	68.6	194.0	165,400	160,500	151,200
	95	67.1	192.0	153,600	149,200	141,000
	100	65.5	189.8	143,200	139,300	132,000
	105	63.9	187.5	133,900	130,500	123,900
	110	62.3	184.9	125,700	122,500	116,600
	115	60.7	182.2	118,200	115,400	110,000
	120	59.1	179.3	111,500	108,900	104,000
	125	57.4	176.2	105,300	103,000	98,600
	130	55.7	172.9	99,800	97,600	93,600
	135	53.9	169.4	94,600	92,700	89,000
	140	52.1	165.6	89,900	88,100	84,700
	145	50.3	161.6	85,600	83,900	80,800
220	150	48.4	157.3	81,500	80,000	77,100
	155	46.4	152.7	77,800	76,400	73,700
	160	44.4	147.8	74,300	73,000	70,500
	165	42.3	142.5	71,100	69,900	67,600
	170	40.2	136.8	68,000	66,900	64,800
	175	37.9	130.6	65,200	64,200	62,200
	180	35.5	123.9	62,500	61,600	59,800
	185	32.9	116.5	60,000	59,100	57,500
	190	30.2	108.4	57,600	56,800	55,300
	195	27.2	99.3	55,400	54,700	53,300
	200	23.9	88.8	53,300	52,600	51,400
	50	81.4	225.3	293,300*		
	55	80.1	224.5	292,500*	256,500*	
	60	78.8	223.6	288,700	255,800*	205,100*
	65	77.4	222.5	257,400	245,700	204,500*
	70	76.1	221.3	231,800	222,000	203,900*
	75	74.8	220.0	210,400	202,100	187,000
	80	73.4	218.6	192,300	185,200	172,200
	85	72.0	217.1	176,800	170,700	159,300
	90	70.7	215.4	163,400	158,000	148,000
	95	69.3	213.5	151,700	146,900	138,000
	100	67.9	211.6	141,300	137,100	129,100
	105	66.5	209.5	132,100	128,300	121,100
	110	65.0	207.2	123,800	120,400	114,000
	115	63.6	204.8	116,400	113,300	107,500
	120	62.1	202.3	109,700	106,900	101,600
	125	60.6	199.5	103,600	101,000	96,200
	130	59.1	196.6	98,000	95,700	91,200
	135	57.6	193.6	92,900	90,700	86,600
	140	56.1	190.3	88,200	86,200	82,400
	145	54.5	186.8	83,800	82,000	78,500
	150	52.9	183.1	79,800	78,100	74,900
	155	51.2	179.2	76,100	74,500	71,500
	160	49.5	175.1	72,600	71,200	68,400
	165	47.8	170.7	69,400	68,000	65,500
	170	46.0	166.0	66,300	65,100	62,700
	175	44.2	161.0	63,500	62,300	60,100
	180	42.3	155.7	60,800	59,800	57,700
	185	40.3	150.0	58,300	57,300	55,400
	190	38.2	143.9	55,900	55,000	53,200
	195	36.1	137.3	53,700	52,800	51,200
	200	33.8	130.1	51,600	50,800	49,200
	205	31.4	122.3	49,600	48,900	47,400
	210	28.8	113.7	47,700	47,000	45,700
	215	25.9	104.0	45,900	45,300	44,000
	220	22.8	93.0	44,200	43,600	42,500

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS	BOOM CAPACITY 1 DEGREE LIST POUNDS	BOOM CAPACITY 2 DEGREE LIST POUNDS
240	55	80.9	244.8	264,100*	230,900*	
	60	79.7	243.9	263,300*	230,200*	183,600*
	65	78.5	243.0	254,900	229,500*	183,000*
	70	77.3	241.9	229,500	219,000	182,400*
	75	76.1	240.7	208,200	199,400	181,700*
	80	74.8	239.4	190,300	182,600	168,700
	85	73.6	238.0	174,900	168,200	156,100
	90	72.3	236.5	161,500	155,700	145,000
	95	71.1	234.8	149,800	144,700	135,100
	100	69.8	233.0	139,500	134,900	126,400
	105	68.5	231.1	130,300	126,200	118,500
	110	67.2	229.1	122,100	118,400	111,500
	115	65.9	226.9	114,700	111,300	105,000
	120	64.6	224.6	108,000	104,900	99,200
	125	63.3	222.2	101,900	99,100	93,900
	130	62.0	219.6	96,300	93,800	89,000
	135	60.6	216.9	91,200	88,900	84,500
	140	59.2	214.0	86,500	84,400	80,300
	145	57.8	210.9	82,200	80,200	76,400
	150	56.4	207.7	78,200	76,400	72,800
	155	54.9	204.2	74,500	72,800	69,500
	160	53.5	200.6	71,000	69,400	66,400
	165	52.0	196.8	67,800	66,300	63,500
	170	50.4	192.8	64,700	63,400	60,700
	175	48.9	188.6	61,900	60,600	58,200
	180	47.3	184.1	59,200	58,000	55,700
	185	45.6	179.3	56,700	55,600	53,500
	190	43.9	174.3	54,400	53,300	51,300
	195	42.2	168.9	52,100	51,200	49,300
	200	40.4	163.2	50,000	49,100	47,300
	205	38.5	157.2	48,000	47,200	45,500
	210	36.5	150.7	46,100	45,300	43,800
	215	34.5	143.6	44,300	43,600	42,100
	220	32.3	136.1	42,600	41,900	40,600
	225	30.0	127.8	41,000	40,300	39,100
	230	27.5	118.7	39,400	38,800	37,700
	235	24.8	108.5	37,900	37,400	36,300
	240	21.8	96.9	36,500	36,000	35,000

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS	BOOM CAPACITY 1 DEGREE LIST POUNDS
260	60	80.5	264.2	233,300*	203,800*
	65	79.4	263.3	232,500*	203,200*
	70	78.3	262.3	227,200	202,500*
	75	77.1	261.3	206,100	196,600
	80	76.0	260.1	188,300	180,100
	85	74.9	258.8	172,900	165,800
	90	73.7	257.4	159,600	153,400
	95	72.6	255.8	148,000	142,500
	100	71.4	254.2	137,700	132,800
	105	70.3	252.5	128,500	124,200
	110	69.1	250.6	120,300	116,400
	115	67.9	248.7	113,000	109,400
	120	66.7	246.6	106,300	103,000
	125	65.5	244.4	100,200	97,300
	130	64.3	242.0	94,700	92,000
	135	63.1	239.5	89,600	87,100
	140	61.8	236.9	84,900	82,600
	145	60.5	234.2	80,600	78,500
	150	59.3	231.3	76,600	74,600
	155	58.0	228.2	72,900	71,100
	160	56.7	225.0	69,400	67,700
	165	55.3	221.7	66,200	64,600
	170	54.0	218.1	63,200	61,700
	175	52.6	214.4	60,400	59,000
	180	51.2	210.5	57,700	56,400
	185	49.8	206.3	55,200	54,000
	190	48.3	202.0	52,800	51,700
	195	46.8	197.4	50,600	49,500
	200	45.3	192.6	48,500	47,500
	205	43.7	187.5	46,500	45,500
	210	42.1	182.2	44,600	43,700
	215	40.5	176.5	42,800	42,000
	220	38.7	170.4	41,100	40,300
	225	36.9	164.0	39,500	38,700
	230	35.1	157.1	37,900	37,200
	235	33.1	149.7	36,400	35,800
	240	31.0	141.7	35,000	34,400
	245	28.8	133.0	33,700	33,100
	250	26.4	123.5	32,400	31,800
	255	23.8	112.8	31,100	30,600
	260	20.9	100.7	29,900	29,500

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY 1/2 DEGREE LIST POUNDS
280	60	81.2	284.5	211,400*
	65	80.2	283.7	210,800*
	70	79.1	282.7	210,100*
	75	78.1	281.7	204,000
	80	77.0	280.6	186,200
	85	76.0	279.4	170,900
	90	74.9	278.1	157,700
	95	73.9	276.7	146,100
	100	72.8	275.2	135,800
	105	71.7	273.6	126,700
	110	70.6	271.9	118,600
	115	69.5	270.1	111,200
	120	68.5	268.2	104,600
	125	67.3	266.2	98,500
	130	66.2	264.0	93,000
	135	65.1	261.8	87,900
	140	64.0	259.4	83,300
	145	62.8	256.9	79,000
	150	61.7	254.3	75,000
	155	60.5	251.5	71,300
	160	59.3	248.6	67,800
	165	58.1	245.6	64,600
	170	56.9	242.4	61,600
	175	55.7	239.0	58,800
	180	54.4	235.6	56,100
	185	53.2	231.9	53,600
	190	51.9	228.1	51,300
	195	50.6	224.0	49,000
	200	49.2	219.8	46,900
	205	47.9	215.4	44,900
	210	46.5	210.8	43,000
	215	45.0	205.9	41,200
	220	43.6	200.8	39,500
	225	42.1	195.4	37,900
	230	40.5	189.7	36,300
	235	38.9	183.7	34,900
	240	37.3	177.3	33,400
	245	35.5	170.5	32,100
	250	33.7	163.3	30,800
	255	31.9	155.5	29,600
	260	29.9	147.2	28,400
	265	27.7	138.1	27,200
	270	25.4	128.1	26,100
	275	23.0	117.0	25,100
	280	20.2	104.3	24,100