

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

M-1200

BOOM NO. 72 WITH 1,433 TON BOOM POINT

MAST NO. 75 OR NO. 75A

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

52,000 LB. CRANE COUNTERWEIGHT

1,753,600 LB. AUXILIARY COUNTERWEIGHT

360 DEGREE RATING

CAPACITIES FOR VARIOUS BOOM LENGTHS AND OPERATING RADII ARE FOR FREELY SUSPENDED LOADS AND DO NOT EXCEED 75% OF A STATIC TIPPING LOAD. CAPACITIES BASED ON STRUCTURAL COMPETENCE ARE DENOTED BY AN ASTERISK (*).

UPPER BOOM POINT CAPACITY FOR LIFTCRANE SERVICE WITH 6 PART LINE IS 180,000 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR MAIN BOOM CAPACITY. UPPER BOOM POINT MINIMUM OPERATING RADII WILL BE RESTRICTED WITH BOOM AT MAXIMUM ANGLE.

WEIGHT OF ALL LOAD BLOCKS, HOOKS, SLINGS, HOIST LINES, ETC., BENEATH BOOM 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 IN A LEVEL POSITION ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH ROLLER PATH LEVEL WITHIN A TOLERANCE OF 1-1/4" IN 60' AND PROPERLY SUPPORTED. REFER TO BOOM RIGGING NO. 173399 AND WIRE ROPE SPECIFICATION CHART NO. 7683-A. 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.

MACHINE MAY BE OPERATED WITHIN WIND LIMITS SHOWN IN TABLE PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON LIFTED LOAD AND OTHER CONSIDERATIONS NOTED ON CAPACITY CHART ARE FOLLOWED. WIND WILL HAVE A CONSIDERABLE EFFECT ON A LOAD WITH A LARGE 'SAIL AREA' AND MUST BE COMPENSATED FOR ACCORDINGLY BY REDUCING LOAD RATINGS, REDUCING OPERATING SPEEDS OR BY A COMBINATION OF BOTH. RECOMMEND STOPPING OPERATION AND LOWERING BOOM TO APPROXIMATELY 75 DEGREE BOOM ANGLE WHEN WIND EXCEEDS THOSE SHOWN IN TABLE. LOWER BOOM TO GROUND WHEN WIND IS ABOVE 50 MPH.

OPERATING RADIUS IS HORIZONTAL DISTANCE FROM AXIS OF ROTATION 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 GROUND LEVEL TO CENTERLINE OF BOOM POINT SHAFT.

MACHINE EQUIPPED WITH 60' RINGER ATTACHMENT, 30'9" CRAWLERS, 48" TREADS, 28' RETRACTABLE GANTRY, 150' NO. 75 OR NO. 75A MAST, 32 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 52,000 LB. CRANE COUNTERWEIGHT AND 1,753,600 LB. AUXILIARY COUNTERWEIGHT.

WIND LIMITS DURING OPERATION	
MAXIMUM WIND VELOCITY MPH	BOOM LENGTH FEET
35	153 - 253
30	278 - 403

MAXIMUM BOOM LENGTH LIFTED UNASSISTED = 403'	DEDUCT 5,400 LBS. FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED
LOAD BLOCKS ON GROUND AT START.	

CONSULT JIB CHART FOR JIB CAPACITIES. JIB AND JIB BACKSTAYS MUST BE REMOVED FOR USE OF THIS CHART.

WARNING: CHECK AMOUNT OF AUXILIARY COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
153	56	82.0	162.0	2,866,500*
	58	81.2	161.7	2,854,600
	60	80.5	161.2	2,672,300
	65	78.5	160.1	2,301,400
	70	76.6	158.8	2,017,400
	75	74.7	157.2	1,793,000
	80	72.7	155.5	1,611,200
	85	70.7	153.6	1,461,000
	90	68.6	151.5	1,334,700
	95	66.6	149.2	1,227,100
	100	64.5	146.7	1,134,300
	105	62.3	143.9	1,053,400
	110	60.2	140.8	982,300
	115	57.9	137.5	919,300
	120	55.6	133.9	863,100
	125	53.2	130.0	812,600
	130	50.8	125.8	767,000
	135	48.2	121.1	725,600
	140	45.5	116.0	687,900
	145	42.7	110.4	653,400
	150	39.7	104.1	621,700
	155	36.5	97.1	592,400
	160	33.0	89.2	565,300
	165	29.1	80.0	540,100

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
178	65	80.2	185.7	2,293,500
	70	78.5	184.6	2,009,400
	75	76.9	183.3	1,784,900
	80	75.2	181.8	1,603,000
	85	73.5	180.2	1,452,700
	90	71.8	178.5	1,326,400
	95	70.1	176.5	1,218,700
	100	68.3	174.4	1,125,900
	105	66.6	172.1	1,045,000
	110	64.8	169.6	973,800
	115	62.9	166.9	910,800
	120	61.1	164.0	854,600
	125	59.2	160.9	804,100
	130	57.2	157.5	758,600
	135	55.3	153.9	717,200
	140	53.2	150.0	679,500
	145	51.1	145.8	645,000
	150	48.9	141.3	613,300
	155	46.7	136.4	584,100
	160	44.4	131.1	557,100
	165	41.9	125.4	532,000
	170	39.3	119.1	508,600
	175	36.6	112.2	486,800
	180	33.6	104.4	466,500
	185	30.4	95.7	447,300

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
203	65	81.4	211.2	2,287,700
	70	80.0	210.2	2,003,400
	75	78.5	209.1	1,778,900
	80	77.1	207.8	1,596,900
	85	75.6	206.4	1,446,600
	90	74.1	204.9	1,320,200
	95	72.6	203.2	1,212,500
	100	71.1	201.4	1,119,600
	105	69.6	199.4	1,038,700
	110	68.1	197.3	967,600
	115	66.5	195.0	904,500
	120	65.0	192.6	848,300
	125	63.4	189.9	797,800
	130	61.8	187.1	752,200
	135	60.1	184.1	710,900
	140	58.4	180.9	673,200
	145	56.7	177.5	638,700
	150	55.0	173.9	607,100
	155	53.2	170.0	577,800
	160	51.4	165.9	550,800
	165	49.5	161.5	525,800
	170	47.6	156.8	502,500
	175	45.5	151.7	480,700
	180	43.5	146.3	460,400
	185	41.3	140.4	441,300
	190	39.0	134.1	423,400
	195	36.6	127.2	406,600
	200	34.1	119.6	390,700
	205	31.3	111.2	375,700
	210	28.3	101.8	361,500

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
228	70	81.1	235.7	1,995,000
	75	79.8	234.7	1,770,200
	80	78.5	233.6	1,588,200
	85	77.2	232.3	1,437,700
	90	75.9	231.0	1,311,300
	95	74.6	229.5	1,203,500
	100	73.3	227.9	1,110,600
	105	72.0	226.2	1,029,700
	110	70.6	224.3	958,500
	115	69.3	222.3	895,400
	120	67.9	220.2	839,200
	125	66.5	217.9	788,700
	130	65.1	215.5	743,100
	135	63.7	212.9	701,700
	140	62.3	210.2	664,000
	145	60.8	207.3	629,500
	150	59.4	204.2	597,900
	155	57.9	201.0	568,700
	160	56.3	197.5	541,600
	165	54.8	193.9	516,600
	170	53.2	190.0	493,300
	175	51.6	185.9	471,500
	180	49.9	181.6	451,200
	185	48.2	177.0	432,200
	190	46.4	172.1	414,300
253	195	44.6	166.9	397,500
	200	42.8	161.4	381,700
	205	40.8	155.4	366,700
	210	38.8	149.0	352,500
	215	36.6	142.2	339,100
	220	34.4	134.7	326,400
	225	32.0	126.6	314,300
	70	82.0	261.0	1,986,500
	75	80.8	260.2	1,761,600
	80	79.7	259.2	1,579,500
	85	78.5	258.1	1,428,900
	90	77.3	256.9	1,302,400
	95	76.2	255.5	1,194,600
	100	75.0	254.1	1,101,600
	105	73.8	252.6	1,020,600
	110	72.6	250.9	949,400
	115	71.4	249.1	886,300
	120	70.2	247.3	830,000
	125	69.0	245.3	779,500
	130	67.8	243.1	733,900
	135	66.5	240.8	692,500
	140	65.3	238.5	654,800
	145	64.0	235.9	620,300
	150	62.7	233.2	588,600
	155	61.4	230.4	559,400
	160	60.1	227.4	532,400
	165	58.8	224.3	507,300
278	170	57.4	221.0	484,000
	175	56.0	217.5	462,200
	180	54.6	213.9	441,900
	185	53.2	210.0	422,900
	190	51.7	206.0	405,000
	195	50.2	201.7	388,200
	200	48.7	197.2	372,400
	205	47.2	192.4	357,400
	210	45.6	187.4	343,300
	215	43.9	182.1	329,900
	220	42.2	176.4	317,200
	225	40.4	170.4	305,100
	230	38.6	164.0	293,700
	235	36.7	157.2	282,700
	240	34.6	149.8	272,300
	245	32.5	141.8	262,300
	250	30.2	133.1	252,800
	255	27.8	123.5	243,700

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
278	75	81.7	285.6	1,755,600
	80	80.6	284.6	1,573,400
	85	79.6	283.6	1,422,800
	90	78.5	282.6	1,296,200
	95	77.4	281.4	1,188,300
	100	76.4	280.1	1,095,300
	105	75.3	278.7	1,014,300
	110	74.2	277.2	943,000
	115	73.2	275.6	879,900
	120	72.1	273.9	823,600
	125	71.0	272.1	773,100
	130	69.9	270.2	727,500
	135	68.8	268.2	686,100
	140	67.6	266.0	648,400
	145	66.5	263.8	613,900
	150	65.4	261.4	582,100
	155	64.2	258.9	552,900
	160	63.1	256.3	525,900
	165	61.9	253.5	500,800
	170	60.7	250.6	477,500
	175	59.5	247.6	455,800
	180	58.3	244.4	435,500
	185	57.0	241.0	416,500
	190	55.8	237.5	398,600
	195	54.5	233.9	381,800
303	200	53.2	230.0	366,000
	205	51.9	226.0	351,000
	210	50.5	221.8	336,900
	215	49.1	217.3	323,500
	220	47.7	212.7	310,800
	225	46.3	207.8	298,800
	230	44.8	202.6	287,300
	235	43.3	197.2	276,400
	240	41.7	191.5	266,000
	245	40.1	185.4	256,000
	250	38.4	179.0	246,500
	255	36.7	172.2	237,400
	260	34.9	164.9	228,700
	265	32.9	157.0	220,400
	270	30.9	148.6	212,400
	275	28.8	139.3	204,700
	80	81.4	310.1	1,564,700
	85	80.4	309.1	1,414,000
	90	79.5	308.1	1,287,300
	95	78.5	307.0	1,179,400
	100	77.5	305.9	1,086,300
	105	76.6	304.6	1,005,200
	110	75.6	303.2	934,000
	115	74.6	301.8	870,800
	120	73.6	300.3	814,500
	125	72.6	298.6	763,900
	130	71.6	296.9	718,300
	135	70.6	295.0	676,900
	140	69.6	293.1	639,100
	145	68.6	291.1	604,600
	150	67.5	288.9	572,900
328	155	66.5	286.7	543,600
	160	65.5	284.3	516,600
	165	64.4	281.8	491,500
	170	63.3	279.2	468,200
	175	62.3	276.5	446,500
	180	61.2	273.7	426,200
	185	60.1	270.7	407,100
	190	59.0	267.6	389,300
	195	57.8	264.4	372,400
	200	56.7	261.0	356,600
	205	55.5	257.5	341,700
	210	54.4	253.9	327,500
	215	53.2	250.0	314,200
	220	52.0	246.0	301,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
303	225	50.7	241.8	289,400
	230	49.5	237.5	278,000
	235	48.2	232.9	267,000
	240	46.9	228.1	256,600
	245	45.6	223.1	246,700
	250	44.2	217.9	237,200
	255	42.8	212.4	228,200
	260	41.3	206.6	219,500
	265	39.8	200.5	211,100
	270	38.3	194.0	203,200
	275	36.7	187.2	195,500
	280	35.0	179.9	188,100
	285	33.3	172.2	181,000
	290	31.5	163.9	174,200
	295	29.5	155.0	167,600
	300	27.5	145.3	161,200
328	85	81.2	334.5	1,407,400
	90	80.3	333.6	1,280,700
	95	79.4	332.6	1,172,800
	100	78.5	331.5	1,079,700
	105	77.6	330.4	998,500
	110	76.7	329.1	927,200
	115	75.8	327.8	864,100
	120	74.9	326.4	807,700
	125	74.0	324.9	757,100
	130	73.1	323.3	711,400
	135	72.1	321.6	670,000
	140	71.2	319.8	632,300
	145	70.3	318.0	597,700
	150	69.3	316.0	566,000
	155	68.4	314.0	536,800
	160	67.5	311.8	509,700
	165	66.5	309.6	484,600
	170	65.5	307.2	461,300
	175	64.6	304.8	439,600
	180	63.6	302.2	419,200
	185	62.6	299.6	400,200
	190	61.6	296.8	382,300
	195	60.6	293.9	365,500
	200	59.6	290.9	349,700
	205	58.5	287.7	334,700
353	210	57.5	284.5	320,600
	215	56.4	281.1	307,200
	220	55.4	277.5	294,600
	225	54.3	273.8	282,500
	230	53.2	270.0	271,000
	235	52.1	266.0	260,100
	240	50.9	261.9	249,700
	245	49.8	257.6	239,800
	250	48.6	253.1	230,300
	255	47.4	248.4	221,300
	260	46.2	243.5	212,600
	265	44.9	238.4	204,300
	270	43.7	233.0	196,300
	275	42.3	227.5	188,600
	280	41.0	221.6	181,300
	285	39.6	215.5	174,200
	290	38.2	209.0	167,400
	295	36.7	202.2	160,800
	300	35.2	195.0	154,500
	305	33.6	187.4	148,400
	310	31.9	179.2	142,500
	315	30.2	170.5	136,800
	320	28.3	161.1	131,300

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360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
353	85	81.8	359.9	1,398,700
	90	81.0	359.0	1,271,900
	95	80.2	358.1	1,163,900
	100	79.3	357.1	1,070,700
	105	78.5	356.0	989,500
	110	77.7	354.9	918,200
	115	76.8	353.7	855,000
	120	76.0	352.3	798,600
	125	75.1	351.0	748,000
	130	74.3	349.5	702,300
	135	73.5	347.9	660,800
	140	72.6	346.3	623,100
	145	71.7	344.6	588,500
	150	70.9	342.8	556,800
	155	70.0	340.9	527,500
	160	69.1	338.9	500,400
	165	68.3	336.7	475,400
	170	67.4	334.7	452,000
	175	66.5	332.5	430,300
	180	65.6	330.2	409,900
	185	64.7	327.7	390,900
	190	63.8	325.2	373,000
	195	62.9	322.6	356,200
	200	61.9	319.8	340,400
	205	61.0	317.0	325,400
	210	60.1	314.0	311,300
	215	59.1	311.0	297,900
	220	58.2	307.8	285,200
	225	57.2	304.5	273,100
	230	56.2	301.1	261,700
	235	55.2	297.5	250,800
	240	54.2	293.8	240,400
	245	53.2	290.0	230,500
	250	52.1	286.1	221,000
	255	51.1	281.9	211,900
	260	50.0	277.7	203,200
	265	48.9	273.2	194,900
	270	47.8	268.6	186,900
	275	46.7	263.8	179,300
	280	45.6	258.8	171,900
	285	44.4	253.6	164,900
	290	43.2	248.2	158,100
	295	42.0	242.6	151,500
	300	40.7	236.6	145,200
	305	39.4	230.5	139,100
	310	38.1	224.0	133,200
	315	36.7	217.2	127,500
	320	35.3	210.0	122,000
	325	33.8	202.5	116,700
	330	32.3	194.5	111,600
	335	30.7	186.0	106,600
	340	29.0	176.9	101,800

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
378	90	81.6	384.4	1,241,600*
	95	80.8	383.5	1,153,500*
	100	80.0	382.6	1,063,800
	105	79.3	381.6	982,600
	110	78.5	380.5	911,200
	115	77.7	379.4	847,900
	120	76.9	378.2	791,500
	125	76.2	376.9	740,900
	130	75.4	375.5	695,200
	135	74.6	374.1	653,700
	140	73.8	372.6	615,900
	145	73.0	371.0	581,400
	150	72.2	369.3	549,600
	155	71.4	367.6	520,300
	160	70.6	365.8	493,300
	165	69.8	363.8	468,200
	170	69.0	361.9	444,800
	175	68.1	359.8	423,100
	180	67.3	357.6	402,700
	185	66.5	355.4	383,700
	190	65.6	353.1	365,800
	195	64.8	350.7	349,000
	200	64.0	348.2	333,100
	205	63.1	345.6	318,200
	210	62.2	342.9	304,000
	215	61.4	340.1	290,600
	220	60.5	337.2	278,000
	225	59.6	334.2	265,900
	230	58.7	331.1	254,400
	235	57.8	327.9	243,500
	240	56.9	324.5	233,100
	245	56.0	321.1	223,200
	250	55.1	317.5	213,700
	255	54.1	313.8	204,700
	260	53.2	310.0	196,000
	265	52.2	306.1	187,700
	270	51.2	302.0	179,700
	275	50.2	297.7	172,100
	280	49.2	293.3	164,700
	285	48.2	288.8	157,600
	290	47.2	284.1	150,800
	295	46.1	279.2	144,300
	300	45.0	274.1	138,000
	305	43.9	268.8	131,900
	310	42.8	263.3	126,000
	315	41.6	257.6	120,300
	320	40.5	251.7	114,900
	325	39.3	245.5	109,600
	330	38.0	239.0	104,400

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
403	95	81.4	408.9	1,091,300*
	100	80.7	408.0	1,017,600*
	105	79.9	407.1	953,000*
	110	79.2	406.1	895,900*
	115	78.5	405.0	838,900
	120	77.8	403.9	782,500
	125	77.0	402.7	731,800
	130	76.3	401.4	686,100
	135	75.6	400.1	644,600
	140	74.8	398.7	606,800
	145	74.1	397.2	572,200
	150	73.3	395.6	540,400
	155	72.6	394.0	511,100
	160	71.8	392.3	484,000
	165	71.1	390.5	458,900
	170	70.3	388.7	435,600
	175	69.6	386.8	413,800
	180	68.8	384.8	393,400
	185	68.0	382.7	374,400
	190	67.3	380.6	356,500
	195	66.5	378.3	339,700
	200	65.7	376.0	323,800
	205	64.9	373.6	308,800
	210	64.1	371.1	294,700
	215	63.3	368.5	281,300
	220	62.5	365.9	268,600
	225	61.7	363.1	256,600
	230	60.9	360.3	245,100
	235	60.1	357.3	234,200
	240	59.2	354.3	223,800
	245	58.4	351.2	213,900
	250	57.5	347.9	204,400
	255	56.7	344.6	195,300
	260	55.8	341.1	186,600
	265	54.9	337.5	178,300
	270	54.1	333.8	170,300
	275	53.2	330.0	162,700
	280	52.3	326.1	155,300
	285	51.3	322.0	148,300
	290	50.4	317.8	141,500
	295	49.5	313.5	134,900
	300	48.5	309.0	128,600
	305	47.5	304.3	122,500
	310	46.6	299.5	116,700
	315	45.6	294.5	111,000
	320	44.5	289.4	105,500
	325	43.5	284.0	100,200