

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

2,017,600 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 2,017,600 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	2,866,500*
	60	80.5	161.2	2,866,500*
	65	78.5	160.1	2,595,700
	70	76.6	158.8	2,277,200
	75	74.7	157.2	2,025,500
	80	72.7	155.5	1,821,700
	85	70.7	153.6	1,653,200
	90	68.6	151.5	1,511,500
	95	66.6	149.2	1,390,900
	100	64.5	146.7	1,286,800
	105	62.3	143.9	1,196,100
	110	60.2	140.8	1,116,300
	115	57.9	137.5	1,045,700
	120	55.6	133.9	982,600
	125	53.2	130.0	926,000
	130	50.8	125.8	874,900
	135	48.2	121.1	828,500
	140	45.5	116.0	786,300
	145	42.7	110.4	747,600
	150	39.7	104.1	709,100*
	155	36.5	97.1	658,000*
	160	33.0	89.2	608,500*
	165	29.1	80.0	559,700*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
178	65	80.2	185.7	2,587,800
	70	78.5	184.6	2,269,200
	75	76.9	183.3	2,017,400
	80	75.2	181.8	1,813,400
	85	73.5	180.2	1,644,900
	90	71.8	178.5	1,503,200
	95	70.1	176.5	1,382,500
	100	68.3	174.4	1,278,300
	105	66.6	172.1	1,187,600
	110	64.8	169.6	1,107,900
	115	62.9	166.9	1,037,200
	120	61.1	164.0	974,200
	125	59.2	160.9	917,600
	130	57.2	157.5	866,500
	135	55.3	153.9	820,100
	140	53.2	150.0	777,800
	145	51.1	145.8	739,200
	150	48.9	141.3	703,600
	155	46.7	136.4	670,900
	160	44.4	131.1	640,600
	165	41.9	125.4	612,400
	170	39.3	119.1	586,300
	175	36.6	112.2	561,900
	180	33.6	104.4	539,000
	185	30.4	95.7	502,500*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
203	65	81.4	211.2	2,582,000
	70	80.0	210.2	2,263,200
	75	78.5	209.1	2,011,400
	80	77.1	207.8	1,807,400
	85	75.6	206.4	1,638,700
	90	74.1	204.9	1,497,000
	95	72.6	203.2	1,376,200
	100	71.1	201.4	1,272,100
	105	69.6	199.4	1,181,400
	110	68.1	197.3	1,101,600
	115	66.5	195.0	1,030,900
	120	65.0	192.6	967,900
	125	63.4	189.9	911,300
	130	61.8	187.1	860,200
	135	60.1	184.1	813,800
	140	58.4	180.9	771,600
	145	56.7	177.5	732,900
	150	55.0	173.9	697,400
	155	53.2	170.0	664,600
	160	51.4	165.9	634,300
	165	49.5	161.5	606,200
	170	47.6	156.8	580,100
	175	45.5	151.7	555,700
	180	43.5	146.3	533,000
	185	41.3	140.4	511,600
	190	39.0	134.1	491,500
	195	36.6	127.2	472,700
	200	34.1	119.6	454,900
	205	31.3	111.2	438,100
	210	28.3	101.8	418,300*

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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	2,254,800
	75	79.8	234.7	2,002,800
	80	78.5	233.6	1,798,600
	85	77.2	232.3	1,629,900
	90	75.9	231.0	1,488,100
	95	74.6	229.5	1,367,300
	100	73.3	227.9	1,263,100
	105	72.0	226.2	1,172,300
	110	70.6	224.3	1,092,500
	115	69.3	222.3	1,021,800
	120	67.9	220.2	958,700
	125	66.5	217.9	902,100
	130	65.1	215.5	851,000
	135	63.7	212.9	804,600
	140	62.3	210.2	762,400
	145	60.8	207.3	723,700
	150	59.4	204.2	688,200
	155	57.9	201.0	655,400
	160	56.3	197.5	625,100
	165	54.8	193.9	597,100
253	170	53.2	190.0	570,900
	175	51.6	185.9	546,600
	180	49.9	181.6	523,800
	185	48.2	177.0	502,400
	190	46.4	172.1	482,400
	195	44.6	166.9	463,600
	200	42.8	161.4	445,800
	205	40.8	155.4	429,000
	210	38.8	149.0	413,200
	215	36.6	142.2	398,100
	220	34.4	134.7	383,900
	225	32.0	126.6	370,300
	230	29.4	117.5	357,400
	70	82.0	261.0	2,246,300
	75	80.8	260.2	1,994,100
	80	79.7	259.2	1,789,900
	85	78.5	258.1	1,621,100
	90	77.3	256.9	1,479,200
	95	76.2	255.5	1,358,300
	100	75.0	254.1	1,254,100
	105	73.8	252.6	1,163,300
	110	72.6	250.9	1,083,400
	115	71.4	249.1	1,012,700
303	120	70.2	247.3	949,600
	125	69.0	245.3	892,900
	130	67.8	243.1	841,800
	135	66.5	240.8	795,400
	140	65.3	238.5	753,100
	145	64.0	235.9	714,400
	150	62.7	233.2	678,900
	155	61.4	230.4	646,100
	160	60.1	227.4	615,900
	165	58.8	224.3	587,800
	170	57.4	221.0	561,600
	175	56.0	217.5	537,300
	180	54.6	213.9	514,500
	185	53.2	210.0	493,200
	190	51.7	206.0	473,100
	195	50.2	201.7	454,300
	200	48.7	197.2	436,500
	205	47.2	192.4	419,800
	210	45.6	187.4	403,900
	215	43.9	182.1	388,900
328	220	42.2	176.4	374,700
	225	40.4	170.4	361,200
	230	38.6	164.0	348,300
	235	36.7	157.2	336,100
	240	34.6	149.8	324,400
	245	32.5	141.8	313,200
	250	30.2	133.1	302,500
	255	27.8	123.5	292,300

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
278	75	81.7	285.6	1,988,100
	80	80.6	284.6	1,783,800
	85	79.6	283.6	1,614,900
	90	78.5	282.6	1,473,000
	95	77.4	281.4	1,352,100
	100	76.4	280.1	1,247,800
	105	75.3	278.7	1,156,900
	110	74.2	277.2	1,077,100
	115	73.2	275.6	1,006,300
	120	72.1	273.9	943,200
	125	71.0	272.1	886,500
	130	69.9	270.2	835,400
	135	68.8	268.2	789,000
	140	67.6	266.0	746,700
	145	66.5	263.8	708,000
	150	65.4	261.4	672,500
	155	64.2	258.9	639,700
	160	63.1	256.3	609,400
	165	61.9	253.5	581,300
	170	60.7	250.6	555,200
303	175	59.5	247.6	530,800
	180	58.3	244.4	508,000
	185	57.0	241.0	486,700
	190	55.8	237.5	466,700
	195	54.5	233.9	447,900
	200	53.2	230.0	430,100
	205	51.9	226.0	413,400
	210	50.5	221.8	397,500
	215	49.1	217.3	382,500
	220	47.7	212.7	368,300
	225	46.3	207.8	354,800
	230	44.8	202.6	342,000
	235	43.3	197.2	329,700
	240	41.7	191.5	318,100
	245	40.1	185.4	306,900
	250	38.4	179.0	296,300
	255	36.7	172.2	286,100
	260	34.9	164.9	276,400
	265	32.9	157.0	267,000
	270	30.9	148.6	258,000
328	275	28.8	139.3	249,400
	80	81.4	310.1	1,741,300*
	85	80.4	309.1	1,600,900*
	90	79.5	308.1	1,464,200
	95	78.5	307.0	1,343,200
	100	77.5	305.9	1,238,800
	105	76.6	304.6	1,147,900
	110	75.6	303.2	1,068,000
	115	74.6	301.8	997,200
	120	73.6	300.3	934,000
	125	72.6	298.6	877,300
	130	71.6	296.9	826,200
	135	70.6	295.0	779,900
	140	69.6	293.1	737,500
	145	68.6	291.1	698,700
	150	67.5	288.9	663,200
	155	66.5	286.7	630,400
	160	65.5	284.3	600,100
	165	64.4	281.8	572,000
	170	63.3	279.2	545,900
	175	62.3	276.5	521,500
303	180	61.2	273.7	498,700
	185	60.1	270.7	477,400
	190	59.0	267.6	457,400
	195	57.8	264.4	438,500
	200	56.7	261.0	420,800
	205	55.5	257.5	404,000
	210	54.4	253.9	388,200
	215	53.2	250.0	373,200
	220	52.0	246.0	359,000
	225	50.7	241.8	345,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
303	230	49.5	237.5	332,600
	235	48.2	232.9	320,400
	240	46.9	228.1	308,700
	245	45.6	223.1	297,600
	250	44.2	217.9	287,000
	255	42.8	212.4	276,800
	260	41.3	206.6	267,100
	265	39.8	200.5	257,700
	270	38.3	194.0	248,800
	275	36.7	187.2	240,200
328	280	35.0	179.9	231,900
	285	33.3	172.2	224,000
	290	31.5	163.9	216,300
	295	29.5	155.0	209,000
	300	27.5	145.3	201,900
	85	81.2	334.5	1,505,800*
	90	80.3	333.6	1,393,500*
	95	79.4	332.6	1,297,100*
	100	78.5	331.5	1,213,200*
	105	77.6	330.4	1,139,500*
303	110	76.7	329.1	1,061,300
	115	75.8	327.8	990,400
	120	74.9	326.4	927,300
	125	74.0	324.9	870,500
	130	73.1	323.3	819,400
	135	72.1	321.6	772,900
	140	71.2	319.8	730,600
	145	70.3	318.0	691,900
	150	69.3	316.0	656,300
	155	68.4	314.0	623,500
328	160	67.5	311.8	593,200
	165	66.5	309.6	565,100
	170	65.5	307.2	539,000
	175	64.6	304.8	514,600
	180	63.6	302.2	491,800
	185	62.6	299.6	470,500
	190	61.6	296.8	450,400
	195	60.6	293.9	431,600
	200	59.6	290.9	413,900
	205	58.5	287.7	397,100
303	210	57.5	284.5	381,300
	215	56.4	281.1	366,300
	220	55.4	277.5	352,000
	225	54.3	273.8	338,500
	230	53.2	270.0	325,700
	235	52.1	266.0	313,500
	240	50.9	261.9	301,800
	245	49.8	257.6	290,700
	250	48.6	253.1	280,100
	255	47.4	248.4	269,900
328	260	46.2	243.5	260,200
	265	44.9	238.4	250,900
	270	43.7	233.0	241,900
	275	42.3	227.5	233,400
	280	41.0	221.6	225,100
	285	39.6	215.5	217,200
	290	38.2	209.0	209,600
	295	36.7	202.2	202,200
	300	35.2	195.0	195,100
	305	33.6	187.4	188,300
303	310	31.9	179.2	181,700
	315	30.2	170.5	175,300
	320	28.3	161.1	169,100

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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	1,418,400*
	90	81.0	359.0	1,311,500*
	95	80.2	358.1	1,219,800*
	100	79.3	357.1	1,140,100*
	105	78.5	356.0	1,070,100*
	110	77.7	354.9	1,008,100*
	115	76.8	353.7	952,700*
	120	76.0	352.3	902,700*
	125	75.1	351.0	857,400*
	130	74.3	349.5	810,200
	135	73.5	347.9	763,700
	140	72.6	346.3	721,400
	145	71.7	344.6	682,700
	150	70.9	342.8	647,100
	155	70.0	340.9	614,300
	160	69.1	338.9	584,000
	165	68.3	336.7	555,800
	170	67.4	334.7	529,700
	175	66.5	332.5	505,300
	180	65.6	330.2	482,500
	185	64.7	327.7	461,100
	190	63.8	325.2	441,100
	195	62.9	322.6	422,300
	200	61.9	319.8	404,500
	205	61.0	317.0	387,800
	210	60.1	314.0	371,900
	215	59.1	311.0	356,900
	220	58.2	307.8	342,700
	225	57.2	304.5	329,200
	230	56.2	301.1	316,300
	235	55.2	297.5	304,100
	240	54.2	293.8	292,500
	245	53.2	290.0	281,300
	250	52.1	286.1	270,700
	255	51.1	281.9	260,600
	260	50.0	277.7	250,800
	265	48.9	273.2	241,500
	270	47.8	268.6	232,600
	275	46.7	263.8	224,000
	280	45.6	258.8	215,800
	285	44.4	253.6	207,800
	290	43.2	248.2	200,200
	295	42.0	242.6	192,900
	300	40.7	236.6	185,800
	305	39.4	230.5	179,000
	310	38.1	224.0	172,400
	315	36.7	217.2	166,000
	320	35.3	210.0	159,900
	325	33.8	202.5	153,900
	330	32.3	194.5	148,200
	335	30.7	186.0	142,600
	340	29.0	176.9	137,200
	345	27.2	167.1	130,900*

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	1,077,200*
	105	79.3	381.6	1,010,200*
	110	78.5	380.5	950,900*
	115	77.7	379.4	898,000*
	120	76.9	378.2	850,400*
	125	76.2	376.9	807,200*
	130	75.4	375.5	768,000*
	135	74.6	374.1	732,000*
	140	73.8	372.6	698,900*
	145	73.0	371.0	668,300*
	150	72.2	369.3	639,900*
	155	71.4	367.6	607,100
	160	70.6	365.8	576,800
	165	69.8	363.8	548,600
	170	69.0	361.9	522,500
	175	68.1	359.8	498,100
	180	67.3	357.6	475,300
	185	66.5	355.4	453,900
	190	65.6	353.1	433,900
	195	64.8	350.7	415,000
	200	64.0	348.2	397,300
	205	63.1	345.6	380,500
	210	62.2	342.9	364,700
	215	61.4	340.1	349,700
	220	60.5	337.2	335,400
	225	59.6	334.2	321,900
	230	58.7	331.1	309,100
	235	57.8	327.9	296,900
	240	56.9	324.5	285,200
	245	56.0	321.1	274,100
	250	55.1	317.5	263,500
	255	54.1	313.8	253,300
	260	53.2	310.0	243,600
	265	52.2	306.1	234,300
	270	51.2	302.0	225,300
	275	50.2	297.7	216,800
	280	49.2	293.3	208,500
	285	48.2	288.8	200,600
	290	47.2	284.1	193,000
	295	46.1	279.2	185,700
	300	45.0	274.1	178,600
	305	43.9	268.8	171,800
	310	42.8	263.3	165,200
	315	41.6	257.6	158,800
	320	40.5	251.7	152,700
	325	39.3	245.5	146,800
	330	38.0	239.0	141,000
	335	36.7	232.2	135,500
	340	35.4	225.1	130,100
	345	34.0	217.6	124,900
	350	32.6	209.7	119,800
	355	31.2	201.3	114,900
	360	29.6	192.4	110,100
	365	28.0	182.9	102,100*

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	845,000*
	120	77.8	403.9	799,200*
	125	77.0	402.7	757,900*
	130	76.3	401.4	720,300*
	135	75.6	400.1	685,900*
	140	74.8	398.7	654,200*
	145	74.1	397.2	625,000*
	150	73.3	395.6	598,000*
	155	72.6	394.0	572,800*
	160	71.8	392.3	549,200*
	165	71.1	390.5	527,200*
	170	70.3	388.7	506,500*
	175	69.6	386.8	486,900*
	180	68.8	384.8	466,000
	185	68.0	382.7	444,600
	190	67.3	380.6	424,600
	195	66.5	378.3	405,700
	200	65.7	376.0	388,000
	205	64.9	373.6	371,200
	210	64.1	371.1	355,300
	215	63.3	368.5	340,300
	220	62.5	365.9	326,100
	225	61.7	363.1	312,600
	230	60.9	360.3	299,800
	235	60.1	357.3	287,500
	240	59.2	354.3	275,900
	245	58.4	351.2	264,700
	250	57.5	347.9	254,100
	255	56.7	344.6	244,000
	260	55.8	341.1	234,200
	265	54.9	337.5	224,900
	270	54.1	333.8	216,000
	275	53.2	330.0	207,400
	280	52.3	326.1	199,200
	285	51.3	322.0	191,300
	290	50.4	317.8	183,600
	295	49.5	313.5	176,300
	300	48.5	309.0	169,200
	305	47.5	304.3	162,400
	310	46.6	299.5	155,800
	315	45.6	294.5	149,500
	320	44.5	289.4	143,400
	325	43.5	284.0	137,400
	330	42.4	278.5	131,700
	335	41.4	272.7	126,100
	340	40.2	266.7	120,800
	345	39.1	260.5	115,500
	350	37.9	254.0	110,500
	355	36.7	247.2	105,600
	360	35.5	240.1	100,800