

MANITOWOC ENGINEERING CO.

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



LIFTCRANE BOOM CAPACITIES

M-1200

**BOOM NO. 72 OR NO. 72A WITH 1,433 TON BOOM POINT
MAST NO. 75 OR NO. 75A
60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS
52,000 LB. CRANE COUNTERWEIGHT
1,797,600 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 MAIN BOOM AND UPPER 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 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, NO. 175673 OR NO. 175955 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 IN WINDS UP TO 35 MPH 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 35 MPH. 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 MAST WITH 32 PART BOOM HOIST REEVING OR NO. 75A MAST WITH 36 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 52,000 LB. CRANE COUNTERWEIGHT AND 1,797,600 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH
LIFTED UNASSISTED = 253'

LOAD BLOCKS ON GROUND AT START.

UPPER BOOM POINT CANNOT BE USED ON BOOM NO. 72.

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	BOOM CAPACITY POUNDS
1 5 3	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	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 5 3	135	48.2	121.1	725,600
	140	45.5	116.0	687,900
	145	42.7	110.4	653,400
1 7 8	150	39.7	104.1	621,700
	155	36.5	97.1	592,400
	160	33.0	89.2	565,300
1 7 8	165	29.1	80.0	540,100
	65	80.2	185.7	2,293,500
	70	78.5	184.6	2,009,400
1 7 8	75	76.9	183.3	1,784,900
	80	75.2	181.8	1,603,000
	85	73.5	180.2	1,452,700
1 7 8	90	71.8	178.5	1,326,400
	95	70.1	176.5	1,218,700
	100	68.3	174.4	1,125,900
1 7 8	105	66.6	172.1	1,045,000

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 7 8	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
1 7 8	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

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM 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	375,600	
210	28.3	101.8	360,700	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM 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	
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	338,800	
220	34.4	134.7	325,500	
225	32.0	126.6	312,800	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
253	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
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	304,500	
230	38.6	164.0	292,500	
235	36.7	157.2	281,000	
240	34.6	149.8	270,000	
245	32.5	141.8	259,500	
250	30.2	133.1	249,400	
255	27.8	123.5	239,700	