

MANITOWOC ENGINEERING CO.

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



LIFTCRANE BOOM CAPACITIES

M-1200

BOOM NO. 72 OR NO. 72A WITH 882 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	1,764,000*
	58	81.2	161.7	1,764,000*
	60	80.5	161.2	1,764,000*
	65	78.5	160.1	1,764,000*
	70	76.6	158.8	1,764,000*
	75	74.7	157.2	1,764,000*
	80	72.7	155.5	1,623,700
	85	70.7	153.6	1,473,600
	90	68.6	151.5	1,347,500
	95	66.6	149.2	1,240,000
	100	64.5	146.7	1,147,300
	105	62.3	143.9	1,066,500
	110	60.2	140.8	995,500
	115	57.9	137.5	932,600
	120	55.6	133.9	876,400
	125	53.2	130.0	826,000
130	50.8	125.8	780,500	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 5 3	135	48.2	121.1	739,200
	140	45.5	116.0	701,500
	145	42.7	110.4	667,000
1 7 8	150	39.7	104.1	635,400
	155	36.5	97.1	606,100
	160	33.0	89.2	579,100
1 7 8	165	29.1	80.0	553,900
	65	80.2	185.7	1,764,000*
	70	78.5	184.6	1,764,000*
1 7 8	75	76.9	183.3	1,764,000*
	80	75.2	181.8	1,615,500
	85	73.5	180.2	1,465,300
1 7 8	90	71.8	178.5	1,339,100
	95	70.1	176.5	1,231,600
	100	68.3	174.4	1,138,800
1 7 8	105	66.6	172.1	1,058,000

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 7 8	110	64.8	169.6	987,000
	115	62.9	166.9	924,100
	120	61.1	164.0	867,900
	125	59.2	160.9	817,500
	130	57.2	157.5	772,000
	135	55.3	153.9	730,700
	140	53.2	150.0	693,000
	145	51.1	145.8	658,600
	150	48.9	141.3	626,900
	155	46.7	136.4	597,700
1 7 8	160	44.4	131.1	570,800
	165	41.9	125.4	545,700
	170	39.3	119.1	522,400
	175	36.6	112.2	500,600
	180	33.6	104.4	480,300
	185	30.4	95.7	461,200

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203	65	81.4	211.2	1,764,000*
	70	80.0	210.2	1,764,000*
	75	78.5	209.1	1,764,000*
	80	77.1	207.8	1,609,400
	85	75.6	206.4	1,459,200
	90	74.1	204.9	1,332,900
	95	72.6	203.2	1,225,300
	100	71.1	201.4	1,132,600
	105	69.6	199.4	1,051,700
	110	68.1	197.3	980,700
	115	66.5	195.0	917,700
	120	65.0	192.6	861,600
	125	63.4	189.9	811,100
	130	61.8	187.1	765,600
	135	60.1	184.1	724,300
	140	58.4	180.9	686,700
	145	56.7	177.5	652,300
	150	55.0	173.9	620,600
	155	53.2	170.0	591,400
	160	51.4	165.9	564,500
165	49.5	161.5	539,400	
170	47.6	156.8	516,200	
175	45.5	151.7	494,500	
180	43.5	146.3	474,200	
185	41.3	140.4	455,100	
190	39.0	134.1	437,300	
195	36.6	127.2	420,500	
200	34.1	119.6	404,600	
205	31.3	111.2	389,200	
210	28.3	101.8	374,400	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
228	70	81.1	235.7	1,764,000*
	75	79.8	234.7	1,764,000*
	80	78.5	233.6	1,600,600
	85	77.2	232.3	1,450,300
	90	75.9	231.0	1,324,000
	95	74.6	229.5	1,216,400
	100	73.3	227.9	1,123,600
	105	72.0	226.2	1,042,700
	110	70.6	224.3	971,600
	115	69.3	222.3	908,600
	120	67.9	220.2	852,400
	125	66.5	217.9	802,000
	130	65.1	215.5	756,400
	135	63.7	212.9	715,100
	140	62.3	210.2	677,500
	145	60.8	207.3	643,000
	150	59.4	204.2	611,400
	155	57.9	201.0	582,200
	160	56.3	197.5	555,200
	165	54.8	193.9	530,200
170	53.2	190.0	506,900	
175	51.6	185.9	485,200	
180	49.9	181.6	464,900	
185	48.2	177.0	445,900	
190	46.4	172.1	428,100	
195	44.6	166.9	411,300	
200	42.8	161.4	395,500	
205	40.8	155.4	380,500	
210	38.8	149.0	366,400	
215	36.6	142.2	352,500	
220	34.4	134.7	339,200	
225	32.0	126.6	326,500	
230	29.4	117.5	314,400	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
253	70	82.0	261.0	1,764,000*
	75	80.8	260.2	1,764,000*
	80	79.7	259.2	1,591,900
	85	78.5	258.1	1,441,500
	90	77.3	256.9	1,315,100
	95	76.2	255.5	1,207,400
	100	75.0	254.1	1,114,500
	105	73.8	252.6	1,033,600
	110	72.6	250.9	962,500
	115	71.4	249.1	899,500
	120	70.2	247.3	843,200
	125	69.0	245.3	792,800
	130	67.8	243.1	747,200
	135	66.5	240.8	705,900
	140	65.3	238.5	668,200
	145	64.0	235.9	633,800
	150	62.7	233.2	602,100
	155	61.4	230.4	572,900
	160	60.1	227.4	545,900
	165	58.8	224.3	520,900
170	57.4	221.0	497,600	
175	56.0	217.5	475,900	
180	54.6	213.9	455,600	
185	53.2	210.0	436,600	
190	51.7	206.0	418,800	
195	50.2	201.7	402,000	
200	48.7	197.2	386,200	
205	47.2	192.4	371,200	
210	45.6	187.4	357,100	
215	43.9	182.1	343,700	
220	42.2	176.4	330,800	
225	40.4	170.4	318,200	
230	38.6	164.0	306,200	
235	36.7	157.2	294,700	
240	34.6	149.8	283,700	
245	32.5	141.8	273,200	
250	30.2	133.1	263,200	
255	27.8	123.5	253,500	