

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 RADIUS 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 RADIUS 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 RADIUS 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
	150	39.7	104.1	635,400
	155	36.5	97.1	606,100
1 7 8	160	33.0	89.2	579,100
	165	29.1	80.0	553,900
	170	25.0	70.0	530,000
1 7 8	65	80.2	185.7	1,764,000*
	70	78.5	184.6	1,764,000*
	75	76.9	183.3	1,764,000*
	80	75.2	181.8	1,615,500
	85	73.5	180.2	1,465,300
	90	71.8	178.5	1,339,100
	95	70.1	176.5	1,231,600
	100	68.3	174.4	1,138,800
	105	66.6	172.1	1,058,000
	110	64.8	169.6	987,000

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
	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