

MANITOWOC ENGINEERING CO.

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



LIFTCRANE BOOM CAPACITIES

M-1200

BOOM NO. 72/75A OR NO. 72A/75A

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 BOOM SHEAVES, IS CONSIDERED PART OF THE 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. 174950, NO. 175729 OR NO. 175956 AND WIRE ROPE SPECIFICATION CHART NO. 7683-B. 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 30 MPH PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON THE 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 30 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.

<p>MAXIMUM BOOM LENGTH LIFTED UNASSISTED = 353'</p>
<p>LOAD BLOCKS ON GROUND AT START.</p>

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	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
303	75	81.6	310.8	1,764,000*	303	190	58.2	267.6	415,000
	80	80.6	310.0	1,587,600		195	57.1	264.3	398,300
	85	79.7	309.1	1,437,000		200	55.9	261.0	382,500
	90	78.7	308.1	1,310,500		205	54.8	257.5	367,600
	95	77.7	307.0	1,202,700		210	53.6	253.8	353,600
	100	76.8	305.8	1,109,800		215	52.4	249.9	340,300
	105	75.8	304.5	1,028,900		220	51.2	245.9	327,700
	110	74.8	303.2	957,700		225	50.0	241.8	315,700
	115	73.8	301.7	894,800		230	48.7	237.4	304,300
	120	72.8	300.2	838,600		235	47.4	232.8	293,500
	125	71.8	298.5	788,200		240	46.1	228.0	283,200
	130	70.8	296.8	742,600		245	44.8	223.0	273,300
	135	69.8	295.0	701,400		250	43.4	217.8	263,900
	140	68.8	293.0	663,800		255	42.0	212.3	254,900
	145	67.8	291.0	629,400		260	40.6	206.5	246,300
	150	66.8	288.9	597,800		265	39.1	200.4	238,000
	155	65.7	286.6	568,700		270	37.5	193.9	230,100
	160	64.7	284.2	541,700		275	35.9	187.1	222,500
	165	63.6	281.8	516,800		280	34.3	179.8	215,200
	170	62.6	279.2	493,600		285	32.5	172.1	208,200
175	61.5	276.5	471,900	290	30.7	163.8	201,500		
180	60.4	273.6	451,700	295	28.8	154.9	194,900		
185	59.3	270.7	432,700						

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
3 2 8	80	81.4	335.3	1,323,700*
	85	80.5	334.5	1,261,500*
	90	79.6	333.6	1,204,100*
	95	78.7	332.6	1,150,600*
	100	77.8	331.5	1,100,700*
	105	76.9	330.3	1,026,300
	110	76.0	329.1	955,200
	115	75.1	327.7	892,200
	120	74.2	326.3	836,000
	125	73.3	324.8	785,600
	130	72.4	323.2	740,100
	135	71.4	321.6	698,800
	140	70.5	319.8	661,200
	145	69.6	317.9	626,800
	150	68.6	316.0	595,200
	155	67.7	313.9	566,100
	160	66.7	311.8	539,200
	165	65.8	309.5	514,200
	170	64.8	307.2	491,000
	175	63.9	304.7	469,400
	180	62.9	302.2	449,200
	185	61.9	299.5	430,200
	190	60.9	296.7	412,400
	195	59.9	293.8	395,700
	200	58.9	290.8	380,000
	205	57.8	287.7	365,100
	210	56.8	284.4	351,100
	215	55.7	281.0	337,800
	220	54.7	277.5	325,200
	225	53.6	273.8	313,200
	230	52.5	269.9	301,800
	235	51.4	266.0	291,000
	240	50.2	261.8	280,700
	245	49.1	257.5	270,800
	250	47.9	253.0	261,400
	255	46.7	248.3	252,400
	260	45.5	243.4	243,800
	265	44.2	238.3	235,500
	270	42.9	233.0	227,600
	275	41.6	227.4	220,000
	280	40.3	221.5	212,800
	285	38.9	215.4	205,700
	290	37.5	208.9	197,300*
	295	36.0	202.1	183,800*
	300	34.5	194.9	170,400*
	305	32.9	187.2	157,300*
	310	31.2	179.1	144,200*
	315	29.5	170.4	131,300*
	320	27.6	161.0	118,500*
BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
3 5 3	80	82.0	360.6	1,271,000*
	85	81.2	359.8	1,211,700*
	90	80.3	359.0	1,156,500*
	95	79.5	358.1	1,105,200*
	100	78.7	357.1	1,057,100*
	105	77.8	356.0	1,011,800*
	110	77.0	354.8	952,900
	115	76.2	353.6	889,900
	120	75.3	352.3	833,700
	125	74.5	350.9	783,300
	130	73.7	349.4	737,800
	135	72.8	347.9	696,600
	140	71.9	346.3	659,000
	145	71.1	344.5	624,600
	150	70.2	342.7	593,000
	155	69.4	340.9	563,800
	160	68.5	338.9	536,900
	165	67.6	336.8	512,000
	170	66.7	334.7	488,700
	175	65.8	332.4	467,100
	180	64.9	330.1	446,900
	185	64.0	327.7	427,900
	190	63.1	325.1	410,200
	195	62.2	322.5	393,500
	200	61.3	319.8	377,700
	205	60.4	316.9	362,900
	210	59.4	314.0	348,800
	215	58.5	310.9	335,500
	220	57.5	307.7	322,900
	225	56.5	304.4	310,900
	230	55.5	301.0	299,600
	235	54.5	297.5	288,700
	240	53.5	293.8	278,400
	245	52.5	290.0	268,600
	250	51.5	286.0	259,200
	255	50.4	281.9	250,200
	260	49.4	277.6	241,600
	265	48.3	273.1	233,300
	270	47.2	268.5	225,400
	275	46.0	263.7	213,000*
	280	44.9	258.7	199,200*
	285	43.7	253.5	185,600*
	290	42.5	248.1	172,300*
	295	41.3	242.5	159,300*
	300	40.1	236.6	146,500*
	305	38.8	230.4	133,800*
	310	37.4	223.9	121,400*
	315	36.1	217.1	109,200*