

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

2,061,600 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 2,061,600 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	1,764,000*
	85	70.7	153.6	1,665,800
	90	68.6	151.5	1,524,300
	95	66.6	149.2	1,403,800
	100	64.5	146.7	1,299,800
	105	62.3	143.9	1,209,200
	110	60.2	140.8	1,129,500
	115	57.9	137.5	1,058,900
	120	55.6	133.9	996,000
	125	53.2	130.0	939,400
130	50.8	125.8	888,400	

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 5 3	135	48.2	121.1	842,100
	140	45.5	116.0	784,800*
	145	42.7	110.4	761,200*
1 7 8	150	39.7	104.1	719,600*
	155	36.5	97.1	668,100*
	160	33.0	89.2	618,300*
1 7 8	165	29.1	80.0	569,200*
	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	1,764,000*
	85	73.5	180.2	1,657,500
	90	71.8	178.5	1,516,000
	95	70.1	176.5	1,395,300
	100	68.3	174.4	1,291,300
	105	66.6	172.1	1,200,700

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
1 7 8	110	64.8	169.6	1,121,000
	115	62.9	166.9	1,050,400
	120	61.1	164.0	987,500
	125	59.2	160.9	930,900
	130	57.2	157.5	879,900
	135	55.3	153.9	833,600
	140	53.2	150.0	791,400
	145	51.1	145.8	752,700
	150	48.9	141.3	717,200
	155	46.7	136.4	684,500
	160	44.4	131.1	654,300
	165	41.9	125.4	626,200
	170	39.3	119.1	600,000
	175	36.6	112.2	575,700
	180	33.6	104.4	549,500*
185	30.4	95.7	511,000*	

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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	1,764,000*
	85	75.6	206.4	1,651,300
	90	74.1	204.9	1,509,800
	95	72.6	203.2	1,389,100
	100	71.1	201.4	1,285,100
	105	69.6	199.4	1,194,400
	110	68.1	197.3	1,114,700
	115	66.5	195.0	1,044,100
	120	65.0	192.6	981,100
	125	63.4	189.9	924,600
	130	61.8	187.1	873,500
	135	60.1	184.1	827,200
	140	58.4	180.9	785,000
	145	56.7	177.5	746,400
	150	55.0	173.9	710,900
	155	53.2	170.0	678,200
	160	51.4	165.9	648,000
165	49.5	161.5	619,900	
170	47.6	156.8	593,800	
175	45.5	151.7	569,500	
180	43.5	146.3	546,700	
185	41.3	140.4	525,400	
190	39.0	134.1	505,400	
195	36.6	127.2	486,500	
200	34.1	119.6	468,800	
205	31.3	111.2	451,600	
210	28.3	101.8	424,900*	

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	1,764,000*
	85	77.2	232.3	1,642,500
	90	75.9	231.0	1,500,900
	95	74.6	229.5	1,380,200
	100	73.3	227.9	1,276,100
	105	72.0	226.2	1,185,400
	110	70.6	224.3	1,105,600
	115	69.3	222.3	1,035,000
	120	67.9	220.2	972,000
	125	66.5	217.9	915,400
	130	65.1	215.5	864,400
	135	63.7	212.9	818,000
	140	62.3	210.2	775,800
	145	60.8	207.3	737,200
	150	59.4	204.2	701,700
	155	57.9	201.0	669,000
	160	56.3	197.5	638,700
	165	54.8	193.9	610,700
170	53.2	190.0	584,600	
175	51.6	185.9	560,200	
180	49.9	181.6	537,500	
185	48.2	177.0	516,200	
190	46.4	172.1	496,200	
195	44.6	166.9	477,400	
200	42.8	161.4	459,600	
205	40.8	155.4	442,900	
210	38.8	149.0	427,000	
215	36.6	142.2	411,500	
220	34.4	134.7	396,600	
225	32.0	126.6	382,500	
230	29.4	117.5	369,000	

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	1,764,000*
	85	78.5	258.1	1,633,700
	90	77.3	256.9	1,491,900
	95	76.2	255.5	1,371,200
	100	75.0	254.1	1,267,000
	105	73.8	252.6	1,176,300
	110	72.6	250.9	1,096,500
	115	71.4	249.1	1,025,800
	120	70.2	247.3	962,800
	125	69.0	245.3	906,200
	130	67.8	243.1	855,100
	135	66.5	240.8	808,800
	140	65.3	238.5	766,600
	145	64.0	235.9	727,900
	150	62.7	233.2	692,400
	155	61.4	230.4	659,700
	160	60.1	227.4	629,400
	165	58.8	224.3	601,400
170	57.4	221.0	575,300	
175	56.0	217.5	550,900	
180	54.6	213.9	528,200	
185	53.2	210.0	506,900	
190	51.7	206.0	486,900	
195	50.2	201.7	468,100	
200	48.7	197.2	450,300	
205	47.2	192.4	433,600	
210	45.6	187.4	417,800	
215	43.9	182.1	402,800	
220	42.2	176.4	388,300	
225	40.4	170.4	374,200	
230	38.6	164.0	360,800	
235	36.7	157.2	348,000	
240	34.6	149.8	335,800	
245	32.5	141.8	324,100	
250	30.2	133.1	312,900	
255	27.8	123.5	302,200	