

MANITOWOC ENGINEERING CO.

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



LIFTCRANE BOOM CAPACITIES WITH JIB NO. 75 ATTACHED

M-1200

**BOOM NO. 72 OR NO. 72A WITH 1,433 TON BOOM POINT
MAST NO. 75 OR NO. 75A
82'6" JIB STRUT
JIB AT 20 DEGREE OFFSET
60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS
52,000 LB. CRANE COUNTERWEIGHT
1,753,600 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, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM POINT SHEAVES, IS CONSIDERED PART OF MAIN BOOM LOAD. WEIGHT OF JIB AND 100,000 LB. JIB LOAD (WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALLS, SLINGS, HOIST LINES, ETC. BENEATH JIB POINT SHEAVES) AND 13,500 LB. UPPER BOOM POINT LOAD (WEIGHT OF ALL LOAD BLOCKS, HOOKS, WEIGHT BALLS, SLINGS, HOIST LINES, ETC. BENEATH UPPER BOOM POINT SHEAVES) HAVE BEEN INCLUDED IN CAPACITY DETERMINATION. DO NOT USE THIS CHART IF JIB LOAD EXCEEDS 100,000 LBS. OR UPPER BOOM POINT LOAD EXCEEDS 13,500 LBS. IF JIB LOAD IS LESS THAN 100,000 LBS., OR UPPER BOOM POINT LOAD IS LESS THAN 13,500 LBS., THE DIFFERENCE CAN BE ADDED TO BOOM CAPACITY. BOOM IS NOT TO BE LOWERED BEYOND RADII WHERE COMBINED WEIGHTS BENEATH BOOM POINT SHEAVES 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. DURING OPERATION, JIB MUST BE AT PROPER OFFSET ANGLE SHOWN. REFER TO BOOM RIGGING NO. 173399, NO. 175673 OR NO. 175955, JIB ASSEMBLY NO. 173400 OR NO. 176116 AND WIRE ROPE SPECIFICATION CHART NO. 7683-E. 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 AND JIB TO APPROXIMATELY 75 DEGREE BOOM ANGLE WHEN WIND EXCEEDS 35 MPH. LOWER BOOM AND JIB 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, STRAP JIB PENDANTS AND BACKSTAYS, 52,000 LB. CRANE COUNTERWEIGHT, AND 1,753,600 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED	
BOOM LGTH.	JIB NO. 75
253'	---
253'	125'
228'	175'
203'	225'
LOAD BLOCKS ON GROUND AT START.	

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

WARNING: CHECK AMOUNT OF AUXILIARY COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

CONSULT CHART NO. 7713-B FOR JIB CAPACITIES.

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MAST NO. 75 OR NO. 75A
82'6" JIB STRUT
100' JIB AT 20 DEGREE OFFSET
60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS
52,000 LB. CRANE COUNTERWEIGHT
1,753,600 LB. AUXILIARY COUNTERWEIGHT
360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
203	65	81.4	211.2	1,764,000*
	70	80.0	210.2	1,718,900
	75	78.5	209.1	1,494,800
	80	77.1	207.8	1,313,200
	85	75.6	206.4	1,163,100
	90	74.1	204.9	1,037,000
	95	72.6	203.2	929,400
	100	71.1	201.4	836,700
	105	69.6	199.4	755,800
	110	68.1	197.3	684,800
	115	66.5	195.0	621,800
	120	65.0	192.6	565,600
	125	63.4	189.9	515,200
	130	61.8	187.1	469,600
	135	60.1	184.1	428,300
	140	58.4	180.9	390,600
	145	56.7	177.5	356,100
	150	55.0	173.9	324,400
	155	53.2	170.0	295,200
	160	51.4	165.9	268,100
208	165	49.5	161.5	243,100
	170	47.6	156.8	219,700
	175	45.5	151.7	198,000
	180	43.5	146.3	177,600
	185	41.3	140.4	158,500
	190	39.0	134.1	140,600
	195	36.6	127.2	123,700
	200	34.1	119.6	102,300*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
228	70	81.1	235.7	1,722,400
	75	79.8	234.7	1,497,600
	80	78.5	233.6	1,315,500
	85	77.2	232.3	1,164,900
	90	75.9	231.0	1,038,300
	95	74.6	229.5	930,500
	100	73.3	227.9	837,400
	105	72.0	226.2	756,300
	110	70.6	224.3	685,000
	115	69.3	222.3	621,800
	120	67.9	220.2	565,400
	125	66.5	217.9	514,800
	130	65.1	215.5	469,100
	135	63.7	212.9	427,600
	140	62.3	210.2	389,800
	145	60.8	207.3	355,100
	150	59.4	204.2	323,300
	155	57.9	201.0	294,000
	160	56.3	197.5	266,900
	165	54.8	193.9	241,700
253	170	53.2	190.0	218,200
	175	51.6	185.9	196,400
	180	49.9	181.6	175,900
	185	48.2	177.0	156,800
	190	46.4	172.1	138,800
	195	44.6	166.9	121,900
	200	42.8	161.4	105,900

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
253	70	82.0	261.0	1,723,100
	75	80.8	260.2	1,497,800
	80	79.7	259.2	1,315,200
	85	78.5	258.1	1,164,300
	90	77.3	256.9	1,037,400
	95	76.2	255.5	929,300
	100	75.0	254.1	836,000
	105	73.8	252.6	754,700
	110	72.6	250.9	683,200
	115	71.4	249.1	619,900
	120	70.2	247.3	563,300
	125	69.0	245.3	512,600
	130	67.8	243.1	466,700
	135	66.5	240.8	425,100
	140	65.3	238.5	387,200
	145	64.0	235.9	352,500
	150	62.7	233.2	320,600
	155	61.4	230.4	291,200
	160	60.1	227.4	263,900
	165	58.8	224.3	238,700
253	170	57.4	221.0	215,200
	175	56.0	217.5	193,300
	180	54.6	213.9	172,800
	185	53.2	210.0	153,600
	190	51.7	206.0	135,500
	195	50.2	201.7	118,500
	200	48.7	197.2	102,500

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MAST NO. 75 OR NO. 75A

82'6" JIB STRUT

125' JIB AT 20 DEGREE OFFSET

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

52,000 LB. CRANE COUNTERWEIGHT

1,753,600 LB. AUXILIARY COUNTERWEIGHT

360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 0 3	65	81.4	211.2	1,764,000*
	70	80.0	210.2	1,664,300
	75	78.5	209.1	1,442,900
	80	77.1	207.8	1,263,600
	85	75.6	206.4	1,115,400
	90	74.1	204.9	990,800
	95	72.6	203.2	884,600
	100	71.1	201.4	793,100
	105	69.6	199.4	713,300
	110	68.1	197.3	643,100
	115	66.5	195.0	581,000
	120	65.0	192.6	525,500
	125	63.4	189.9	475,800
	130	61.8	187.1	430,800
	135	60.1	184.1	390,100
	140	58.4	180.9	352,900
	145	56.7	177.5	318,900
	150	55.0	173.9	287,700
	155	53.2	170.0	258,900
	160	51.4	165.9	232,300
	165	49.5	161.5	207,600
	170	47.6	156.8	184,700
	175	45.5	151.7	163,300
	180	43.5	146.3	143,300
	185	41.3	140.4	124,600
	190	39.0	134.1	107,000

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 2 8	70	81.1	235.7	1,669,700
	75	79.8	234.7	1,447,600
	80	78.5	233.6	1,267,800
	85	77.2	232.3	1,119,100
	90	75.9	231.0	994,100
	95	74.6	229.5	887,500
	100	73.3	227.9	795,600
	105	72.0	226.2	715,600
	110	70.6	224.3	645,200
	115	69.3	222.3	582,800
	120	67.9	220.2	527,100
	125	66.5	217.9	477,200
	130	65.1	215.5	432,100
	135	63.7	212.9	391,100
	140	62.3	210.2	353,800
	145	60.8	207.3	319,700
	150	59.4	204.2	288,300
	155	57.9	201.0	259,400
	160	56.3	197.5	232,600
	165	54.8	193.9	207,800
	170	53.2	190.0	184,800
	175	51.6	185.9	163,200
	180	49.9	181.6	143,100
	185	48.2	177.0	124,300
	190	46.4	172.1	106,600

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 5 3	70	82.0	261.0	1,671,800
	75	80.8	260.2	1,449,200
	80	79.7	259.2	1,268,900
	85	78.5	258.1	1,119,800
	90	77.3	256.9	994,600
	95	76.2	255.5	887,800
	100	75.0	254.1	795,600
	105	73.8	252.6	715,400
	110	72.6	250.9	644,800
	115	71.4	249.1	582,200
	120	70.2	247.3	526,400
	125	69.0	245.3	476,300
	130	67.8	243.1	431,100
	135	66.5	240.8	390,000
	140	65.3	238.5	352,600
	145	64.0	235.9	318,400
	150	62.7	233.2	286,900
	155	61.4	230.4	257,900
	160	60.1	227.4	231,000
	165	58.8	224.3	206,100
	170	57.4	221.0	183,000
	175	56.0	217.5	161,400
	180	54.6	213.9	141,200
	185	53.2	210.0	122,300
	190	51.7	206.0	104,500

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MAST NO. 75 OR NO. 75A
82'6" JIB STRUT
150' JIB AT 20 DEGREE OFFSET
60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS
52,000 LB. CRANE COUNTERWEIGHT
1,753,600 LB. AUXILIARY COUNTERWEIGHT
360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 0 3	65	81.4	211.2	1,764,000*
	70	80.0	210.2	1,605,000
	75	78.5	209.1	1,386,700
	80	77.1	207.8	1,209,900
	85	75.6	206.4	1,063,800
	90	74.1	204.9	941,000
	95	72.6	203.2	836,400
	100	71.1	201.4	746,100
	105	69.6	199.4	667,500
	110	68.1	197.3	598,400
	115	66.5	195.0	537,200
	120	65.0	192.6	482,600
	125	63.4	189.9	433,600
	130	61.8	187.1	389,400
	135	60.1	184.1	349,300
	140	58.4	180.9	312,700
	145	56.7	177.5	279,300
	150	55.0	173.9	248,600
	155	53.2	170.0	220,300
	160	51.4	165.9	194,200
	165	49.5	161.5	170,000
	170	47.6	156.8	147,500
	175	45.5	151.7	126,500
	180	43.5	146.3	106,900

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 2 8	70	81.1	235.7	1,612,600
	75	79.8	234.7	1,393,600
	80	78.5	233.6	1,216,200
	85	77.2	232.3	1,069,600
	90	75.9	231.0	946,300
	95	74.6	229.5	841,300
	100	73.3	227.9	750,700
	105	72.0	226.2	671,800
	110	70.6	224.3	602,400
	115	69.3	222.3	540,900
	120	67.9	220.2	486,100
	125	66.5	217.9	436,900
	130	65.1	215.5	392,400
	135	63.7	212.9	352,100
	140	62.3	210.2	315,400
	145	60.8	207.3	281,800
	150	59.4	204.2	250,900
	155	57.9	201.0	222,400
	160	56.3	197.5	196,100
	165	54.8	193.9	171,700
	170	53.2	190.0	149,000
	175	51.6	185.9	127,900
	180	49.9	181.6	108,100

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175' JIB AT 20 DEGREE OFFSET
60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS
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1,753,600 LB. AUXILIARY COUNTERWEIGHT
360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 0 3	65	81.4	211.2	1,764,000*
	70	80.0	210.2	1,550,000
	75	78.5	209.1	1,334,600
	80	77.1	207.8	1,160,100
	85	75.6	206.4	1,015,800
	90	74.1	204.9	894,700
	95	72.6	203.2	791,400
	100	71.1	201.4	702,400
	105	69.6	199.4	624,800
	110	68.1	197.3	556,700
	115	66.5	195.0	496,300
	120	65.0	192.6	442,500
	125	63.4	189.9	394,100
	130	61.8	187.1	350,600
	135	60.1	184.1	311,000
	140	58.4	180.9	275,000
	145	56.7	177.5	242,100
	150	55.0	173.9	211,900
	155	53.2	170.0	184,100
	160	51.4	165.9	158,400
	165	49.5	161.5	134,600
	170	47.6	156.8	112,400

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 2 8	70	81.1	235.7	1,559,600
	75	79.8	234.7	1,343,500
	80	78.5	233.6	1,168,400
	85	77.2	232.3	1,023,600
	90	75.9	231.0	902,000
	95	74.6	229.5	798,400
	100	73.3	227.9	709,000
	105	72.0	226.2	631,100
	110	70.6	224.3	562,700
	115	69.3	222.3	502,000
	120	67.9	220.2	447,900
	125	66.5	217.9	399,400
	130	65.1	215.5	355,600
	135	63.7	212.9	315,800
	140	62.3	210.2	279,600
	145	60.8	207.3	246,500
	150	59.4	204.2	216,100
	155	57.9	201.0	188,100
	160	56.3	197.5	162,200
	165	54.8	193.9	138,200
	170	53.2	190.0	115,800

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200' JIB AT 20 DEGREE OFFSET
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1,753,600 LB. AUXILIARY COUNTERWEIGHT
360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 0 3	65	81.4	211.2	1,753,300
	70	80.0	210.2	1,485,000
	75	78.5	209.1	1,273,000
	80	77.1	207.8	1,101,300
	85	75.6	206.4	959,500
	90	74.1	204.9	840,300
	95	72.6	203.2	738,700
	100	71.1	201.4	651,200
	105	69.6	199.4	575,000
	110	68.1	197.3	508,000
	115	66.5	195.0	448,600
	120	65.0	192.6	395,800
	125	63.4	189.9	348,300
	130	61.8	187.1	305,500
	135	60.1	184.1	266,700
	140	58.4	180.9	231,400
	145	56.7	177.5	199,100
	150	55.0	173.9	169,500
	155	53.2	170.0	142,200
	160	51.4	165.9	117,100

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225' JIB AT 20 DEGREE OFFSET

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	BOOM CAPACITY POUNDS
2 0 3	65	81.4	211.2	1,681,800
	70	80.0	210.2	1,418,200
	75	78.5	209.1	1,210,000
	80	77.1	207.8	1,041,400
	85	75.6	206.4	902,100
	90	74.1	204.9	785,100
	95	72.6	203.2	685,400
	100	71.1	201.4	599,500
	105	69.6	199.4	524,700
	110	68.1	197.3	458,900
	115	66.5	195.0	400,800
	120	65.0	192.6	348,900
	125	63.4	189.9	302,400
	130	61.8	187.1	260,500
	135	60.1	184.1	222,500
	140	58.4	180.9	187,900
	145	56.7	177.5	151,000*
	150	55.0	173.9	127,300*
	155	53.2	170.0	100,600*