

# MANITOWOC ENGINEERING CO.

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



## M-1200

## LIFT CRANE CAPACITIES

MEETS  
ANSI B30.5  
REQUIREMENTS

BOOM NO. 72 WITH 882 TON BOOM POINT

MAST NO. 75

60' RINGER ATTACHMENT ON SCREW JACK PEDESTALS

52,000 LB. CRANE COUNTERWEIGHT

2,017,600 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 (\*).

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 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 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 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 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, 32 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 52,000 LB. CRANE COUNTERWEIGHT AND 2,017,600 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH  
LIFTED UNASSISTED = 253'

LOAD BLOCK ON GROUND AT START.

CONSULT JIB CHART FOR JIB CAPACITIES. JIB 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	CAPACI TY POUNDS
<b>1 5 3</b>	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
	135	48.2	121.1	842,100
	140	45.5	116.0	799,900
	145	42.7	110.4	761,200
	150	39.7	104.1	725,700
	155	36.5	97.1	676,300*
	160	33.0	89.2	626,900*
	165	29.1	80.0	578,200*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACI TY POUNDS
<b>1 7 8</b>	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
	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	552,900
	185	30.4	95.7	521,100*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACI TY POUNDS
<b>2 0 3</b>	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	452,000
	210	28.3	101.8	436,100

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACI TY POUNDS
<b>2 2 8</b>	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	412,000
	220	34.4	134.7	397,800
	225	32.0	126.6	384,300
	230	29.4	117.5	371,400

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACI TY POUNDS
<b>2 5 3</b>	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	388,600
	225	40.4	170.4	375,100
	230	38.6	164.0	362,200
	235	36.7	157.2	350,000
	240	34.6	149.8	338,300
	245	32.5	141.8	327,200
	250	30.2	133.1	316,500
	255	27.8	123.5	306,300