

MANITOWOC ENGINEERING CO.

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



LIFT CRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

M-1200

BOOM NO. 72/75A

MAST NO. 75

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 (*).

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. 174950 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, 32 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 52,000 LB. CRANE COUNTERWEIGHT AND 1,753,600 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH
LIFTED UNASSISTED = 378'

LOAD BLOCK ON GROUND AT START.

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

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360 DEGREE RATING

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
3 2 8	80	81.4	335.3	1,393,200*
	85	80.5	334.5	1,328,100*
	90	79.6	333.6	1,268,000*
	95	78.7	332.6	1,200,100
	100	77.8	331.5	1,107,200
	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	199,000
	295	36.0	202.1	192,500
	300	34.5	194.9	186,200
	305	32.9	187.2	180,200
	310	31.2	179.1	174,400
	315	29.5	170.4	168,800
	320	27.6	161.0	163,300

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
3 5 3	80	82.0	360.6	1,334,500*
	85	81.2	359.8	1,273,200*
	90	80.3	359.0	1,216,200*
	95	79.5	358.1	1,163,300*
	100	78.7	357.1	1,105,000
	105	77.8	356.0	1,024,000
	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	217,800
	280	44.9	258.7	210,500
	285	43.7	253.5	203,500
	290	42.5	248.1	196,800
	295	41.3	242.5	190,300
	300	40.1	236.6	184,000
	305	38.8	230.4	178,000
	310	37.4	223.9	170,300*
	315	36.1	217.1	158,100*
	320	34.6	209.9	146,100*
	325	33.2	202.4	134,200*
	330	31.6	194.4	122,500*
	335	30.0	185.8	110,900*

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
3 7 8	85	81.7	385.2	1,096,400*
	90	81.0	384.4	1,045,800*
	95	80.2	383.5	998,600*
	100	79.4	382.6	954,300*
	105	78.7	381.6	912,500*
	110	77.9	380.5	873,100*
	115	77.1	379.3	835,900*
	120	76.3	378.1	800,600*
	125	75.5	376.8	767,200*
	130	74.8	375.5	734,500
	135	74.0	374.0	693,200
	140	73.2	372.5	655,600
	145	72.4	370.9	621,200
	150	71.6	369.3	589,600
	155	70.8	367.5	560,500
	160	70.0	365.7	533,600
	165	69.2	363.8	508,600
	170	68.4	361.8	485,400
	175	67.5	359.7	463,800
	180	66.7	357.6	443,500
	185	65.9	355.4	424,600
	190	65.0	353.0	406,800
	195	64.2	350.6	390,100
	200	63.4	348.1	374,400
	205	62.5	345.5	359,500
	210	61.6	342.8	345,500
	215	60.8	340.0	332,200
	220	59.9	337.1	319,600
	225	59.0	334.1	307,600
	230	58.1	331.0	296,200
	235	57.2	327.8	285,400
	240	56.3	324.5	272,200*
	245	55.4	321.0	257,500*
	250	54.5	317.5	243,200*
	255	53.5	313.8	229,200*
	260	52.6	310.0	215,500*
	265	51.6	306.0	202,100*
	270	50.6	301.9	189,000*
	275	49.6	297.7	176,100*
	280	48.6	293.3	163,500*
	285	47.6	288.7	151,200*
	290	46.5	284.0	139,100*
	295	45.5	279.1	127,300*
	300	44.4	274.0	115,600*
	305	43.3	268.8	104,200*