

MANITOWOC ENGINEERING CO.

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



LIFT CRANE BOOM CAPACITIES

M-1200

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

MAST NO. 75 OR NO. 75A

18.3m RINGER ATTACHMENT ON SCREW JACK PEDESTALS

23 590 kg CRANE COUNTERWEIGHT

935 130 kg 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 LIFT CRANE SERVICE WITH 6 PART LINE IS 81 650 kg. 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 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 32 mm IN 18.3m 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 13 m/s 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 13 m/s. LOWER BOOM TO GROUND WHEN WIND IS ABOVE 22 m/s.

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 18.3m RINGER ATTACHMENT, 9 373 mm CRAWLERS, 1 219 mm TREADS, 8 534 mm RETRACTABLE GANTRY, 45.7m NO. 75 MAST WITH 32 PART BOOM HOIST REEVING OR NO. 75A MAST WITH 36 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 23 590 kg CRANE COUNTERWEIGHT AND 935 130 kg AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH
LIFTED UNASSISTED = 107.6m

LOAD BLOCKS ON GROUND AT START.

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 LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KI LOGRAMS	BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KI LOGRAMS
9 2 · 4	3 0 3	22.9	81.6	94.7	800 000*	9 2 · 4	3 0 3	56.0	59.6	82.7	230 600
		24.0	80.9	94.6	800 000*			58.0	58.1	81.5	218 700
		26.0	79.6	94.2	735 500			60.0	56.7	80.2	207 600
		28.0	78.4	93.8	653 400			62.0	55.1	78.8	197 400
		30.0	77.1	93.3	586 900			64.0	53.6	77.4	188 000
		32.0	75.8	92.8	531 700			66.0	52.0	75.8	179 200
		34.0	74.5	92.3	485 000			68.0	50.4	74.2	170 900
		36.0	73.2	91.7	445 200			70.0	48.8	72.4	163 200
		38.0	71.9	91.0	410 700			72.0	47.1	70.6	156 000
		40.0	70.6	90.3	380 600			74.0	45.4	68.7	149 300
		42.0	69.3	89.6	354 000			76.0	43.6	66.6	142 900
		44.0	67.9	88.8	330 500			78.0	41.7	64.4	136 900
		46.0	66.6	87.9	309 400			80.0	39.8	62.0	131 200
		48.0	65.2	87.0	290 400			82.0	37.8	59.5	125 900
		50.0	63.8	86.0	273 300			84.0	35.7	56.8	120 800
		52.0	62.4	85.0	257 800			86.0	33.5	53.8	116 000
		54.0	61.0	83.9	243 600			88.0	31.2	50.6	111 400

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BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KI LOGRAMS
1 0 0 · 0	3 2 8	24.4	81.4	102.2	600 400*
		26.0	80.4	101.9	570 500*
		28.0	79.3	101.6	536 900*
		30.0	78.1	101.1	506 200*
		32.0	76.9	100.7	478 100*
		34.0	75.7	100.2	452 200*
		36.0	74.5	99.6	428 300*
		38.0	73.3	99.0	406 000*
		40.0	72.1	98.4	379 400
		42.0	70.9	97.7	352 800
		44.0	69.7	97.0	329 300
		46.0	68.5	96.2	308 300
		48.0	67.2	95.4	289 300
		50.0	66.0	94.5	272 200
		52.0	64.7	93.5	256 600
		54.0	63.4	92.5	242 400
		56.0	62.1	91.5	229 400
		58.0	60.8	90.4	217 500
		60.0	59.5	89.2	206 500
		62.0	58.2	88.0	196 300
		64.0	56.8	86.7	186 800
		66.0	55.4	85.3	178 000
		68.0	54.0	83.9	169 800
		70.0	52.5	82.4	162 100
		72.0	51.1	80.8	154 900
		74.0	49.6	79.1	148 100
		76.0	48.0	77.3	141 800
		78.0	46.5	75.4	134 200*
		80.0	44.9	73.4	125 100*
		82.0	43.2	71.3	116 300*
		84.0	41.5	69.1	107 600*
		86.0	39.7	66.7	99 200*
88.0	37.8	64.2	91 000*		
90.0	35.9	61.5	83 000*		
92.0	33.9	58.6	75 000*		
94.0	31.7	55.4	67 300*		
96.0	29.5	52.0	59 600*		

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KI LOGRAMS
1 0 7 · 6	3 5 3	24.4	82.0	109.9	576 500*
		26.0	81.1	109.7	548 000*
		28.0	80.0	109.3	515 700*
		30.0	78.9	108.9	486 200*
		32.0	77.8	108.5	458 900*
		34.0	76.8	108.0	433 800*
		36.0	75.7	107.5	410 400*
		38.0	74.6	107.0	388 700*
		40.0	73.4	106.4	368 300*
		42.0	72.3	105.8	349 200*
		44.0	71.2	105.1	328 200
		46.0	70.1	104.4	307 200
		48.0	68.9	103.6	288 300
		50.0	67.8	102.8	271 200
		52.0	66.6	101.9	255 600
		54.0	65.5	101.0	241 400
		56.0	64.3	100.1	228 400
		58.0	63.1	99.1	216 500
		60.0	61.9	98.0	205 400
		62.0	60.7	96.9	195 300
		64.0	59.4	95.7	185 800
		66.0	58.2	94.5	177 000
		68.0	56.9	93.2	168 800
		70.0	55.6	91.8	159 800*
		72.0	54.3	90.4	149 800*
		74.0	53.0	88.9	140 100*
		76.0	51.6	87.3	130 800*
		78.0	50.2	85.7	121 700*
		80.0	48.8	83.9	112 800*
		82.0	47.4	82.1	104 200*
		84.0	45.9	80.2	95 800*
		86.0	44.4	78.2	87 600*
88.0	42.8	76.1	79 600*		
90.0	41.2	73.8	71 900*		
92.0	39.6	71.4	64 300*		
94.0	37.9	68.9	56 800*		
96.0	36.1	66.2	49 500*		