

# 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 WITH 1300 METRIC TON BOOM POINT  
MAST NO. 75  
18.3m RINGER ATTACHMENT ON SCREW JACK PEDESTALS  
23 590 kg CRANE COUNTERWEIGHT  
795 420 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 (\*).

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. 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 16 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 16 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, 1 229 mm TREADS, 8 534 mm RETRACTABLE GANTRY, 45.7m NO. 75 MAST, 32 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 23 590 kg CRANE COUNTERWEIGHT AND 795 420 kg AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH  
LIFTED UNASSISTED = 77.1m  
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 LENGTH METERS	BOOM LGTH. FEET	OPER. RAD. METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KI LOGRAMS
<b>4 6 - 6</b>	<b>1 5 3</b>	17.1	81.9	49.4	1 300 000*
		18.0	80.8	49.2	1 260 800
		19.0	79.6	49.0	1 126 600
		20.0	78.3	48.7	1 025 800
		22.0	75.8	48.2	867 400
		24.0	73.2	47.5	749 700
		26.0	70.6	46.8	658 900
		28.0	67.9	45.9	586 200
		30.0	65.1	45.0	527 000
		32.0	62.3	43.9	477 900
		34.0	59.5	42.6	436 300
		36.0	56.5	41.3	400 700
		38.0	53.4	39.7	370 000
		40.0	50.1	38.0	343 000
		42.0	46.7	36.1	319 300
		44.0	43.1	33.9	298 300
46.0	39.2	31.4	279 400		
48.0	34.8	28.5	262 400		
50.0	29.9	25.0	247 100		

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RAD. METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KI LOGRAMS
<b>5 4 - 3</b>	<b>1 7 8</b>	19.8	80.2	56.6	1 040 300
		20.0	80.0	56.6	1 024 400
		22.0	77.8	56.1	863 700
		24.0	75.6	55.5	746 000
		26.0	73.4	54.9	655 100
		28.0	71.2	54.2	582 400
		30.0	68.9	53.4	523 200
		32.0	66.6	52.5	474 000
		34.0	64.2	51.5	432 400
		36.0	61.8	50.3	396 900
		38.0	59.3	49.1	366 100
		40.0	56.8	47.8	339 200
		42.0	54.1	46.3	315 500
		44.0	51.4	44.6	294 400
		46.0	48.5	42.8	275 600
		48.0	45.6	40.8	258 700
50.0	42.4	38.6	243 400		
52.0	39.0	36.1	229 400		
54.0	35.3	33.2	216 700		
56.0	31.2	29.9	205 000		

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<b>6 1 9</b>	<b>2 0 3</b>	19.8	81.4	64.4	1 037 600
		20.0	81.2	64.3	1 021 700
		22.0	79.3	63.9	861 000
		24.0	77.4	63.4	743 300
		26.0	75.5	62.9	652 300
		28.0	73.6	62.3	579 600
		30.0	71.6	61.6	520 300
		32.0	69.6	60.8	471 200
		34.0	67.6	59.9	429 600
		36.0	65.6	59.0	394 000
		38.0	63.5	58.0	363 200
		40.0	61.4	56.8	336 300
		42.0	59.2	55.6	312 600
		44.0	57.0	54.3	291 600
		46.0	54.7	52.8	272 800
		48.0	52.3	51.2	255 800
		50.0	49.9	49.5	240 600
		52.0	47.3	47.6	226 700
		54.0	44.7	45.5	213 900
		56.0	41.9	43.3	202 300
58.0	38.9	40.7	191 500		
60.0	35.7	37.9	181 700		
62.0	32.2	34.7	172 500		
64.0	28.3	31.0	164 000		
<b>6 9 5</b>	<b>2 2 8</b>	21.3	81.1	71.8	904 900
		22.0	80.5	71.7	860 400
		24.0	78.8	71.3	739 300
		26.0	77.1	70.8	648 300
		28.0	75.4	70.2	575 500
		30.0	73.7	69.6	516 300
		32.0	72.0	68.9	467 100
		34.0	70.2	68.2	425 500
		36.0	68.4	67.4	389 900
		38.0	66.6	66.5	359 100
		40.0	64.8	65.5	332 200
		42.0	62.9	64.4	308 500
		44.0	61.0	63.3	287 400
		46.0	59.1	62.1	268 600
		48.0	57.1	60.7	251 700
		50.0	55.1	59.3	236 400
		52.0	53.0	57.8	222 500
		54.0	50.9	56.1	209 700
		56.0	48.6	54.3	198 100
		58.0	46.3	52.4	187 400
60.0	43.9	50.3	177 500		
62.0	41.4	48.0	168 400		
64.0	38.8	45.4	159 900		
66.0	36.0	42.7	152 000		
68.0	32.9	39.5	144 600		

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RAD. METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KI LOGRAMS
<b>7 7 1</b>	<b>2 5 3</b>	21.3	82.0	79.6	901 000
		22.0	81.5	79.5	856 600
		24.0	80.0	79.1	735 400
		26.0	78.4	78.6	644 300
		28.0	76.9	78.1	571 500
		30.0	75.4	77.6	512 200
		32.0	73.8	77.0	463 000
		34.0	72.3	76.3	421 300
		36.0	70.7	75.6	385 700
		38.0	69.1	74.8	354 900
		40.0	67.5	73.9	328 000
		42.0	65.8	73.0	304 300
		44.0	64.2	72.0	283 200
		46.0	62.5	70.9	264 400
		48.0	60.8	69.8	247 500
		50.0	59.0	68.6	232 200
		52.0	57.2	67.2	218 300
		54.0	55.4	65.8	205 500
		56.0	53.6	64.3	193 900
		58.0	51.6	62.7	183 200
60.0	49.7	61.0	173 300		
62.0	47.7	59.1	164 200		
64.0	45.6	57.1	155 700		
66.0	43.4	55.0	147 800		
68.0	41.1	52.7	140 400		
70.0	38.7	50.1	133 500		
72.0	36.2	47.4	127 000		
74.0	33.5	44.3	120 900		
76.0	30.5	40.9	115 200		