

# MANITOWOC ENGINEERING CO.

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



## LIFTCRANE BOOM CAPACITIES

## M-1200

**BOOM NO. 72 OR NO. 72A WITH 1300 METRIC TON BOOM POINT**

**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 RADIUS 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 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 MAIN BOOM AND UPPER BOOM POINT SHEAVES, IS CONSIDERED PART OF MAIN BOOM LOAD. BOOM IS NOT TO BE LOWERED BEYOND RADIUS 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, NO. 175673 OR NO. 175955 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 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 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 = 77.1m

LOAD BLOCKS ON GROUND AT START.

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

CONSULT JIB CHART FOR JIB CAPACITIES. 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 KILOGRAMS
4 6 · 6	1 5 3	17.1	82.0	49.4	1 300 000*
		18.0	80.8	49.2	1 300 000*
		19.0	79.6	49.0	1 242 800*
		20.0	78.3	48.7	1 160 700
		22.0	75.8	48.2	979 400
		24.0	73.2	47.5	847 500
		26.0	70.6	46.8	745 600
		28.0	67.9	45.9	664 000
		30.0	65.1	45.0	597 700
		32.0	62.3	43.9	542 600
		34.0	59.5	42.6	495 900
		36.0	56.5	41.3	456 100
		38.0	53.4	39.7	421 600
		40.0	50.1	38.0	391 100
		42.0	46.7	36.1	359 500*
		44.0	43.1	33.9	339 100*
		46.0	39.2	31.4	313 600*
		48.0	34.8	28.5	283 100*
		50.0	29.9	25.0	253 800*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KILOGRAMS
5 4 · 3	1 7 8	19.8	80.2	56.6	1 173 800
		20.0	80.0	56.6	1 155 900
		22.0	77.8	56.1	975 800
		24.0	75.6	55.5	843 800
		26.0	73.4	54.9	741 800
		28.0	71.2	54.2	660 300
		30.0	68.9	53.4	593 900
		32.0	66.6	52.5	538 700
		34.0	64.2	51.5	492 100
		36.0	61.8	50.3	452 200
		38.0	59.3	49.1	417 800
		40.0	56.8	47.8	387 600
		42.0	54.1	46.3	361 000
		44.0	51.4	44.6	337 400
		46.0	48.5	42.8	316 300
		48.0	45.6	40.8	297 300
		50.0	42.4	38.6	280 100
		52.0	39.0	36.1	264 500
		54.0	35.3	33.2	249 100
		56.0	31.2	29.9	228 000*

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<b>6 1 · 9</b>	<b>2 0 3</b>	19.8	81.4	64.4	1 171 100
		20.0	81.2	64.3	1 153 300
		22.0	79.3	63.9	973 000
		24.0	77.4	63.4	841 000
		26.0	75.5	62.9	739 000
		28.0	73.6	62.3	657 400
		30.0	71.6	61.6	591 000
		32.0	69.6	60.8	535 900
		34.0	67.6	59.9	489 300
		36.0	65.6	59.0	449 400
		38.0	63.5	58.0	414 900
		40.0	61.4	56.8	384 700
		42.0	59.2	55.6	358 100
		44.0	57.0	54.3	334 600
		46.0	54.7	52.8	313 500
		48.0	52.3	51.2	294 400
		50.0	49.9	49.5	277 300
		52.0	47.3	47.6	261 700
		54.0	44.7	45.5	247 500
		56.0	41.9	43.3	234 400
<b>6 9 · 5</b>	<b>2 2 8</b>	58.0	38.9	40.7	222 400
		60.0	35.7	37.9	211 300
		62.0	32.2	34.7	200 600*
		64.0	28.3	31.0	184 300*
		21.3	81.1	71.8	1 022 700
		22.0	80.5	71.7	972 900
		24.0	78.8	71.3	837 100
		26.0	77.1	70.8	735 000
		28.0	75.4	70.2	653 400
		30.0	73.7	69.6	587 000
		32.0	72.0	68.9	531 800
		34.0	70.2	68.2	485 100
		36.0	68.4	67.4	445 200
		38.0	66.6	66.5	410 700
		40.0	64.8	65.5	380 600
		42.0	62.9	64.4	354 000
		44.0	61.0	63.3	330 400
		46.0	59.1	62.1	309 300
		48.0	57.1	60.7	290 300
		50.0	55.1	59.3	273 100
		52.0	53.0	57.8	257 500
		54.0	50.9	56.1	243 300
		56.0	48.6	54.3	230 200
		58.0	46.3	52.4	218 300
		60.0	43.9	50.3	207 200
		62.0	41.4	48.0	196 900
		64.0	38.8	45.4	187 400
		66.0	36.0	42.7	178 300
		68.0	32.9	39.5	169 700
		70.0	29.6	36.0	161 500

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADI US METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACI TY KI LOGRAMS
<b>7 7 · 1</b>	<b>2 5 3</b>	21.3	82.0	79.6	1 018 900
		22.0	81.5	79.5	969 000
		24.0	80.0	79.1	833 100
		26.0	78.4	78.6	731 000
		28.0	76.9	78.1	649 400
		30.0	75.4	77.6	582 900
		32.0	73.8	77.0	527 700
		34.0	72.3	76.3	481 000
		36.0	70.7	75.6	441 100
		38.0	69.1	74.8	406 600
		40.0	67.5	73.9	376 400
		42.0	65.8	73.0	349 800
		44.0	64.2	72.0	326 200
		46.0	62.5	70.9	305 100
		48.0	60.8	69.8	286 100
		50.0	59.0	68.6	268 900
		52.0	57.2	67.2	253 300
		54.0	55.4	65.8	239 100
		56.0	53.6	64.3	226 100
		58.0	51.6	62.7	214 000
		60.0	49.7	61.0	203 000
		62.0	47.7	59.1	192 700
		64.0	45.6	57.1	183 200
		66.0	43.4	55.0	174 300
		68.0	41.1	52.7	165 900
		70.0	38.7	50.1	157 800
		72.0	36.2	47.4	150 200
		74.0	33.5	44.3	143 100
		76.0	30.5	40.9	136 300