

# MANITOWOC ENGINEERING CO.

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



## LIFTCRANE BOOM CAPACITIES

# M-1200

**BOOM NO. 72 OR NO. 72A WITH 800 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 KI LOGRAMS
4 6 · 6	1 5 3	17.1	82.0	49.4	800 000*
		18.0	80.8	49.2	800 000*
		19.0	79.6	49.0	800 000*
		20.0	78.3	48.7	800 000*
		22.0	75.8	48.2	800 000*
		24.0	73.2	47.5	800 000*
		26.0	70.6	46.8	752 200
		28.0	67.9	45.9	669 900
		30.0	65.1	45.0	603 600
		32.0	62.3	43.9	548 500
		34.0	59.5	42.6	501 900
		36.0	56.5	41.3	462 100
		38.0	53.4	39.7	427 700
		40.0	50.1	38.0	397 500
		42.0	46.7	36.1	368 000*
		44.0	43.1	33.9	345 700*
		46.0	39.2	31.4	322 400*
		48.0	34.8	28.5	291 700*
		50.0	29.9	25.0	262 400*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACITY KI LOGRAMS
5 4 · 3	1 7 8	19.8	80.2	56.6	800 000*
		20.0	80.0	56.6	800 000*
		22.0	77.8	56.1	800 000*
		24.0	75.6	55.5	800 000*
		26.0	73.4	54.9	748 400
		28.0	71.2	54.2	666 100
		30.0	68.9	53.4	599 700
		32.0	66.6	52.5	544 700
		34.0	64.2	51.5	498 100
		36.0	61.8	50.3	458 200
		38.0	59.3	49.1	423 800
		40.0	56.8	47.8	393 700
		42.0	54.1	46.3	367 100
		44.0	51.4	44.6	343 500
		46.0	48.5	42.8	322 400
		48.0	45.6	40.8	303 500
		50.0	42.4	38.6	286 400
		52.0	39.0	36.1	270 700
		54.0	35.3	33.2	256 000
		56.0	31.2	29.9	236 700*

# MANITOWOC ENGINEERING CO.

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



## LIFT CRANE BOOM CAPACITIES

**M-1200**

**BOOM NO. 72 OR NO. 72A WITH 800 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**

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADI US METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	BOOM CAPACI TY KI LOGRAMS
<b>6 1 · 9</b>	<b>2 0 3</b>	19.8	81.4	64.4	800 000*
		20.0	81.2	64.3	800 000*
		22.0	79.3	63.9	800 000*
		24.0	77.4	63.4	800 000*
		26.0	75.5	62.9	745 500
		28.0	73.6	62.3	663 300
		30.0	71.6	61.6	596 900
		32.0	69.6	60.8	541 800
		34.0	67.6	59.9	495 200
		36.0	65.6	59.0	455 400
		38.0	63.5	58.0	420 900
		40.0	61.4	56.8	390 800
		42.0	59.2	55.6	364 200
		44.0	57.0	54.3	340 700
		46.0	54.7	52.8	319 600
		48.0	52.3	51.2	300 600
		50.0	49.9	49.5	283 500
		52.0	47.3	47.6	267 900
		54.0	44.7	45.5	253 700
		56.0	41.9	43.3	240 700
<b>6 9 · 5</b>	<b>2 2 8</b>	58.0	38.9	40.7	228 700
		60.0	35.7	37.9	217 600
		62.0	32.2	34.7	207 200
		64.0	28.3	31.0	192 800*
		21.3	81.1	71.8	800 000*
		22.0	80.5	71.7	800 000*
		24.0	78.8	71.3	800 000*
		26.0	77.1	70.8	741 400
		28.0	75.4	70.2	659 200
		30.0	73.7	69.6	592 800
		32.0	72.0	68.9	537 700
		34.0	70.2	68.2	491 100
		36.0	68.4	67.4	451 200
		38.0	66.6	66.5	416 800
		40.0	64.8	65.5	386 600
		42.0	62.9	64.4	360 100
		44.0	61.0	63.3	336 500
		46.0	59.1	62.1	315 400
		48.0	57.1	60.7	296 400
		50.0	55.1	59.3	279 300
		52.0	53.0	57.8	263 700
		54.0	50.9	56.1	249 500
		56.0	48.6	54.3	236 500
		58.0	46.3	52.4	224 500
		60.0	43.9	50.3	213 500
		62.0	41.4	48.0	203 200
		64.0	38.8	45.4	193 700
		66.0	36.0	42.7	184 500
		68.0	32.9	39.5	175 800
		70.0	29.6	36.0	167 700

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	800 000*
		22.0	81.5	79.5	800 000*
		24.0	80.0	79.1	800 000*
		26.0	78.4	78.6	737 200
		28.0	76.9	78.1	655 100
		30.0	75.4	77.6	588 700
		32.0	73.8	77.0	533 600
		34.0	72.3	76.3	486 900
		36.0	70.7	75.6	447 100
		38.0	69.1	74.8	412 600
		40.0	67.5	73.9	382 400
		42.0	65.8	73.0	355 900
		44.0	64.2	72.0	332 300
		46.0	62.5	70.9	311 200
		48.0	60.8	69.8	292 200
		50.0	59.0	68.6	275 100
		52.0	57.2	67.2	259 500
		54.0	55.4	65.8	245 300
		56.0	53.6	64.3	232 300
		58.0	51.6	62.7	220 300
		60.0	49.7	61.0	209 200
		62.0	47.7	59.1	199 000
		64.0	45.6	57.1	189 500
		66.0	43.4	55.0	180 600
		68.0	41.1	52.7	172 100
		70.0	38.7	50.1	164 000
		72.0	36.2	47.4	156 400
		74.0	33.5	44.3	149 300
		76.0	30.5	40.9	142 500