

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

M-1200

BOOM NO. 75A

MAST NO. 75/49A

18.3m RINGER ATTACHMENT ON SCREW JACK PEDESTALS

23 590 kg CRANE COUNTERWEIGHT

715 590 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 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 RADII 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 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. 173398 AND WIRE ROPE SPECIFICATION CHART NO. 7683-C. 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 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. 75/49A MAST, 20 PART BOOM HOIST REEVING, STRAP BOOM PENDANTS, 23 590 kg CRANE COUNTERWEIGHT AND 715 590 kg AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH LIFTED UNASSISTED = 121.9m	DEDUCT 2 450 kg FROM CAPACITIES WHEN UPPER BOOM POINT IS ATTACHED
LOAD BLOCKS ON GROUND AT START.	

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	CAPACITY KILOGRAMS
4 5 7	1 5 0	16.8	80.7	48.5	816 400*
		18.0	79.1	48.2	816 400*
		20.0	76.5	47.8	816 400*
		22.0	73.9	47.2	785 000*
		24.0	71.3	46.5	684 600*
		26.0	68.6	45.8	592 800*
		28.0	65.9	44.9	521 700*
		30.0	63.1	43.9	463 800*
		32.0	60.2	42.8	415 700*
		34.0	57.2	41.5	374 900*
		36.0	54.1	40.1	339 900*
		38.0	50.9	38.5	309 500*
		40.0	47.6	36.7	282 700*
		42.0	44.0	34.7	258 800*
		44.0	40.2	32.4	237 300*
		46.0	36.0	29.7	215 500*
		48.0	31.4	26.6	194 400*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KILOGRAMS
5 3 3	1 7 5	16.8	82.0	56.2	720 200*
		18.0	80.7	56.0	720 200*
		20.0	78.5	55.6	720 200*
		22.0	76.3	55.1	717 600*
		24.0	74.0	54.6	687 900
		26.0	71.8	53.9	609 800
		28.0	69.5	53.2	544 100
		30.0	67.2	52.3	490 600
		32.0	64.8	51.4	446 200
		34.0	62.4	50.4	407 900
		36.0	59.9	49.2	370 500*
		38.0	57.4	48.0	337 400*
		40.0	54.8	46.6	308 600*
		42.0	52.1	45.1	283 200*
		44.0	49.2	43.4	260 500*
		46.0	46.3	41.5	240 200*
		48.0	43.2	39.4	221 800*
		50.0	39.9	37.1	205 000*
		52.0	36.3	34.5	189 400*
		54.0	32.5	31.4	174 900*
		56.0	28.1	27.9	160 100*

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BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KILOGRAMS
6 1 · 0	2 0 0	18.3	81.6	63.7	655 300*
		20.0	79.9	63.4	650 100*
		22.0	78.0	63.0	639 500*
		24.0	76.1	62.5	628 900*
		26.0	74.1	61.9	608 900
		28.0	72.2	61.3	541 900
		30.0	70.2	60.6	488 400
		32.0	68.1	59.8	444 100
		34.0	66.1	58.9	406 500
		36.0	64.0	57.9	374 400
		38.0	61.9	56.9	346 600
		40.0	59.7	55.7	322 300
		42.0	57.5	54.5	300 900
		44.0	55.2	53.1	280 500*
		46.0	52.9	51.6	259 100*
	2 2 5	48.0	50.4	50.0	239 700*
		50.0	47.9	48.2	222 200*
		52.0	45.3	46.3	206 200*
		54.0	42.6	44.1	191 600*
		56.0	39.7	41.8	178 100*
		58.0	36.6	39.2	165 500*
		60.0	33.2	36.2	153 600*
		62.0	29.5	32.8	142 300*
		19.8	81.2	71.1	579 600*
		20.0	81.1	71.1	578 900*
		22.0	79.4	70.7	570 400*
		24.0	77.7	70.3	561 800*
		26.0	75.9	69.8	553 200*
		28.0	74.2	69.3	537 600*
		30.0	72.5	68.6	487 800
		32.0	70.7	67.9	442 300
		34.0	68.9	67.2	404 700
		36.0	67.1	66.3	372 600
		38.0	65.3	65.4	344 900
		40.0	63.4	64.4	320 600
		42.0	61.5	63.4	299 200
		44.0	59.6	62.2	280 200
		46.0	57.6	61.0	263 300
		48.0	55.6	59.6	248 000
		50.0	53.5	58.1	234 200
		52.0	51.4	56.6	221 300*
		54.0	49.2	54.9	205 800*
		56.0	46.9	53.0	191 800*
		58.0	44.5	51.0	178 900*
		60.0	42.1	48.9	167 000*
		62.0	39.5	46.5	155 900*
		64.0	36.7	43.9	145 500*
		66.0	33.8	41.0	135 600*
		68.0	30.6	37.7	126 200*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KILOGRAMS
7 6 · 2	2 5 0	21.3	81.0	78.6	513 500*
		22.0	80.5	78.5	511 200*
		24.0	78.9	78.1	504 200*
		26.0	77.4	77.7	497 000*
		28.0	75.8	77.2	489 800*
		30.0	74.3	76.6	478 100
		32.0	72.7	76.0	440 100
		34.0	71.1	75.3	402 500
		36.0	69.5	74.6	370 400
		38.0	67.9	73.8	342 700
		40.0	66.2	72.9	318 400
		42.0	64.6	72.0	297 000
		44.0	62.9	71.0	278 000
		46.0	61.2	69.9	261 000
		48.0	59.4	68.7	245 800
	2 7 5	50.0	57.7	67.4	232 000
		52.0	55.9	66.1	219 400
		54.0	54.0	64.7	208 000
		56.0	52.1	63.1	197 500
		58.0	50.2	61.5	187 900
		60.0	48.2	59.7	177 800*
		62.0	46.1	57.8	166 100*
		64.0	43.9	55.8	155 500*
		66.0	41.7	53.6	145 600*
		68.0	39.3	51.2	136 300*
		70.0	36.9	48.6	127 500*
		72.0	34.3	45.7	119 200*
		74.0	31.4	42.5	111 200*
		76.0	28.4	39.0	103 600*
		21.3	81.8	86.3	461 000*
		22.0	81.3	86.2	459 200*
		24.0	79.9	85.9	453 700*
		26.0	78.5	85.5	447 900*
		28.0	77.1	85.0	441 000*
		30.0	75.7	84.5	429 000*
		32.0	74.3	84.0	416 900*
		34.0	72.9	83.4	392 900*
		36.0	71.4	82.7	364 200*
		38.0	70.0	82.0	339 600*
		40.0	68.5	81.2	316 800
		42.0	67.0	80.4	295 300
		44.0	65.5	79.5	276 300
		46.0	64.0	78.5	259 400
		48.0	62.5	77.5	244 100
		50.0	60.9	76.4	230 300
		52.0	59.3	75.2	217 800
		54.0	57.7	73.9	206 300
		56.0	56.1	72.6	195 900
		58.0	54.4	71.2	186 200
		60.0	52.7	69.7	177 300
		62.0	50.9	68.1	169 100
		64.0	49.1	66.4	161 500
		66.0	47.3	64.5	153 600*
		68.0	45.4	62.6	145 100*
		70.0	43.4	60.5	136 100*
		72.0	41.4	58.3	127 700*
		74.0	39.2	55.9	119 900*
		76.0	37.0	53.3	112 400*
		78.0	34.6	50.4	105 300*
		80.0	32.1	47.3	98 400*
		82.0	29.4	43.9	91 900*

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9 1 4	3 0 0	22.9	81.5	93.8	407 900*
		24.0	80.8	93.6	405 000*
		26.0	79.5	93.3	395 700*
		28.0	78.2	92.8	385 500*
		30.0	76.9	92.4	375 200*
		32.0	75.7	91.9	365 100*
		34.0	74.4	91.3	355 000*
		36.0	73.0	90.7	343 200*
		38.0	71.7	90.1	322 900*
		40.0	70.4	89.4	302 500*
		42.0	69.1	88.6	284 500*
		44.0	67.7	87.8	268 100*
		46.0	66.3	86.9	253 300*
		48.0	65.0	86.0	239 700*
		50.0	63.6	85.0	227 100*
		52.0	62.1	84.0	215 500*
		54.0	60.7	82.8	204 100
		56.0	59.3	81.7	193 600
		58.0	57.8	80.4	184 000
		60.0	56.3	79.1	175 100
		62.0	54.7	77.7	166 900
		64.0	53.2	76.2	159 200
		66.0	51.6	74.6	152 000
		68.0	50.0	73.0	144 900*
		70.0	48.3	71.2	138 000*
		72.0	46.6	69.3	131 300*
		74.0	44.8	67.4	124 900*
		76.0	43.0	65.2	118 500*
		78.0	41.1	63.0	111 400*
		80.0	39.1	60.6	104 600*
		82.0	37.1	58.0	98 100*
		84.0	34.9	55.2	91 900*
		86.0	32.6	52.1	86 000*
		88.0	30.2	48.8	80 300*
9 9 1	3 2 5	24.4	81.3	101.3	355 800*
		26.0	80.3	101.0	349 000*
		28.0	79.2	100.6	340 400*
		30.0	78.0	100.2	331 600*
		32.0	76.8	99.7	322 900*
		34.0	75.6	99.2	314 300*
		36.0	74.4	98.7	305 700*
		38.0	73.2	98.1	297 200*
		40.0	72.0	97.4	287 800*
		42.0	70.7	96.7	270 500*
		44.0	69.5	96.0	255 400*
		46.0	68.3	95.2	241 600*
		48.0	67.0	94.4	229 000*
		50.0	65.7	93.5	217 500*
		52.0	64.5	92.5	206 700*
		54.0	63.2	91.5	196 800*
		56.0	61.9	90.5	187 500*
		58.0	60.5	89.3	178 800*
		60.0	59.2	88.2	170 600*
		62.0	57.8	86.9	162 900*
		64.0	56.4	85.6	155 500*
		66.0	55.0	84.2	148 600*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KILOGRAMS
9 9 1	3 2 5	68.0	53.6	82.7	141 900*
		70.0	52.1	81.2	135 600*
		72.0	50.6	79.6	129 500*
		74.0	49.1	77.9	123 700*
		76.0	47.6	76.1	118 100*
		78.0	46.0	74.1	112 700*
		80.0	44.3	72.1	107 400*
		82.0	42.6	70.0	102 300*
		84.0	40.9	67.7	97 300*
		86.0	39.0	65.3	91 500*
		88.0	37.2	62.7	85 900*
		90.0	35.2	59.9	80 500*
		92.0	33.1	56.9	75 300*
		94.0	30.9	53.6	70 300*
		96.0	28.5	50.0	65 400*
1 0 6 7	3 5 0	24.4	81.9	109.0	315 400*
		26.0	81.0	108.7	309 600*
		28.0	79.9	108.4	302 200*
		30.0	78.8	108.0	294 600*
		32.0	77.7	107.6	287 000*
		34.0	76.6	107.1	279 200*
		36.0	75.5	106.6	271 400*
		38.0	74.4	106.0	263 400*
		40.0	73.3	105.4	255 100*
		42.0	72.2	104.8	246 800*
		44.0	71.0	104.1	238 500*
		46.0	69.9	103.4	229 000*
		48.0	68.7	102.6	217 100*
		50.0	67.6	101.8	206 300*
		52.0	66.4	100.9	196 400*
		54.0	65.2	100.0	187 100*
		56.0	64.0	99.0	178 500*
		58.0	62.8	98.0	170 500*
		60.0	61.6	97.0	162 900*
		62.0	60.4	95.8	155 700*
		64.0	59.1	94.6	149 000*
		66.0	57.9	93.4	142 500*
		68.0	56.6	92.1	136 500*
		70.0	55.3	90.7	130 700*
		72.0	53.9	89.3	125 100*
		74.0	52.6	87.7	119 700*
		76.0	51.2	86.2	114 600*
		78.0	49.8	84.5	109 700*
		80.0	48.4	82.7	104 900*
		82.0	46.9	80.9	100 300*
		84.0	45.4	78.9	95 800*
		86.0	43.9	76.9	91 400*
		88.0	42.3	74.7	87 100*
		90.0	40.7	72.4	83 000*
		92.0	39.0	70.0	78 800*
		94.0	37.2	67.4	74 200*
		96.0	35.4	64.6	69 400*
		98.0	33.5	61.6	64 800*
		100.0	31.4	58.4	60 400*
		102.0	29.3	55.0	56 100*

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1 1 4 · 3	3 7 5	25.9	81.7	116.5	273 700*
		26.0	81.6	116.5	273 500*
		28.0	80.6	116.1	267 200*
		30.0	79.6	115.8	260 700*
		32.0	78.6	115.4	254 000*
		34.0	77.5	114.9	246 800*
		36.0	76.5	114.5	239 400*
		38.0	75.5	113.9	231 700*
		40.0	74.4	113.4	223 900*
		42.0	73.4	112.8	216 300*
		44.0	72.3	112.2	208 900*
		46.0	71.3	111.5	201 600*
		48.0	70.2	110.8	194 400*
		50.0	69.1	110.0	187 200*
		52.0	68.1	109.2	180 200*
		54.0	67.0	108.4	173 300*
		56.0	65.9	107.5	166 700*
		58.0	64.8	106.5	160 100*
		60.0	63.7	105.6	153 300*
		62.0	62.5	104.5	146 700*
		64.0	61.4	103.4	140 400*
		66.0	60.2	102.3	134 100*
		68.0	59.1	101.1	128 100*
		70.0	57.9	99.9	122 200*
		72.0	56.7	98.6	116 500*
		74.0	55.5	97.2	110 900*
		76.0	54.2	95.8	105 400*
		78.0	53.0	94.3	100 100*
		80.0	51.7	92.7	94 900*
		82.0	50.4	91.1	89 800*
		84.0	49.1	89.4	84 800*
		86.0	47.8	87.6	80 000*
		88.0	46.4	85.7	75 200*
		90.0	45.0	83.7	70 500*
		92.0	43.5	81.6	66 000*
		94.0	42.0	79.4	61 500*
		96.0	40.5	77.1	57 100*
		98.0	38.9	74.7	52 700*
		100.0	37.3	72.1	48 500*
1 2 1 · 9	4 0 0	27.4	81.5	123.9	234 100*
		28.0	81.2	123.9	233 400*
		30.0	80.3	123.5	229 300*
		32.0	79.3	123.1	222 600*
		34.0	78.3	122.7	215 700*
		36.0	77.4	122.3	208 600*
		38.0	76.4	121.8	201 600*
		40.0	75.4	121.3	194 500*
		42.0	74.5	120.7	187 700*
		44.0	73.5	120.1	180 700*
		46.0	72.5	119.5	173 800*
		48.0	71.5	118.9	167 100*
		50.0	70.5	118.2	160 500*
		52.0	69.5	117.4	154 000*
		54.0	68.5	116.6	147 800*
		56.0	67.5	115.8	141 500*
		58.0	66.5	114.9	135 200*
		60.0	65.4	114.0	129 000*
		62.0	64.4	113.1	122 900*
		64.0	63.3	112.1	116 800*
		66.0	62.3	111.0	111 000*
		68.0	61.2	109.9	105 300*
		70.0	60.1	108.8	99 800*

BOOM LENGTH METERS	BOOM LGTH. FEET	OPER. RADIUS METERS	BOOM ANG. DEG.	BOOM POINT ELEV. METERS	CAPACITY KILOGRAMS
1 2 1 · 9	4 0 0	72.0	59.0	107.6	94 400*
		74.0	57.9	106.4	89 100*
		76.0	56.8	105.1	84 000*
		78.0	55.7	103.7	79 100*
		80.0	54.5	102.3	74 200*
		82.0	53.3	100.8	69 500*
		84.0	52.2	99.3	64 900*
		86.0	50.9	97.7	60 400*
		88.0	49.7	96.0	56 000*
		90.0	48.5	94.2	51 700*
		92.0	47.2	92.4	47 400*