

**MANITOWOC ENGINEERING CO.**

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

**LIFTCRANE CAPACITIES**MEETS
ANSI B30.5
REQUIREMENTS**M-50W****BOOM NO. 45A
26,700 LB. COUNTERWEIGHT
19'6" CRAWLERS EXTENDED
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 SINGLE PART WHIP LINE IS 15,000 LBS. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

WEIGHT OF JIB, ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM AND JIB POINT 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 CRAWLERS FULLY EXTENDED (14'6") AND GANTRY UP. REFER TO RIGGING NO. 168234 (WITH 45A TOP) OR 170130 AND WIRE ROPE SPECIFICATION CHART NO. 7529-A. CRANE OPERATOR JUDGMENT MUST BE USED TO ALLOW FOR DYNAMIC LOAD EFFECTS OF SWINGING, HOISTING OR LOWERING, TRAVEL, WIND CONDITIONS, AS WELL AS ADVERSE OPERATING CONDITIONS AND PHYSICAL MACHINE DEPRECIATION.

MACHINE MAY BE OPERATED IN WINDS UP TO 15 MPH PROVIDED CRANE OPERATOR JUDGMENT IS USED TO ALLOW FOR WIND EFFECT ON THE LIFTED LOAD AND OTHER CONSIDERATIONS NOTED ON THE 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 WHEN WIND IS ABOVE 15 MPH AND TIEING OFF OR LOWERING BOOM WHEN WIND IS ABOVE 35 MPH.

MACHINE TO TRAVEL ON A FIRM, LEVEL AND UNIFORMLY SUPPORTING SURFACE AND BOOM WITHIN THE BOOM ANGLE RANGE SHOWN IN CAPACITY CHART.

OPERATING RADIUS IS THE HORIZONTAL DISTANCE FROM THE AXIS OF ROTATION TO THE CENTER OF VERTICAL HOIST LINE OR LOAD BLOCK. BOOM ANGLE IS THE 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 19'6" EXTENDIBLE CRAWLERS, 30" OR 36" TREADS, 17' RETRACTABLE GANTRY, 10 PART BOOM HOIST REEVING, TWO 1-1/8" BOOM PENDANTS, 1ST COUNTERWEIGHT = 21,200 LBS., 2ND COUNTERWEIGHT = 5,500 LBS.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED				DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVER END OF BLOCKED CRAWLERS		OVER SIDE OF EXTENDED CRAWLERS			
BOOM LGTH.	JIB NO. 130	BOOM LGTH.	JIB NO. 130	JIB LGTH.	JIB NO. 130
180'	---	170'	---	30'	1,800 LBS.
170'	---	160'	---	40'	2,200 LBS.
160'	40'	150'	---	50'	2,600 LBS.
150'	60'	140'	40'	60'	3,100 LBS.
		130'	60'		
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.					

LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.

CONSULT JIB CHART FOR JIB CAPACITIES.

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
40	12	78.4	44.4	120,000*	50	12	80.8	54.6	119,400*	60	13	81.4	64.5	105,000*
	13	77.0	44.1	111,500		13	79.6	54.4	111,400*		14	80.4	64.4	96,800
	14	75.5	43.8	96,900		14	78.4	54.2	96,900		15	79.4	64.2	85,500
	15	74.0	43.6	85,700		15	77.3	53.9	85,600		16	78.4	64.0	76,500
	16	72.5	43.2	76,700		16	76.1	53.7	76,600		17	77.5	63.7	69,200
	17	71.0	42.9	69,400		17	74.9	53.4	69,300		18	76.5	63.5	63,100
	18	69.4	42.5	63,400		18	73.7	53.1	63,200		19	75.5	63.2	58,000
	19	67.9	42.1	58,300		19	72.5	52.8	58,100		20	74.5	62.9	53,600
	20	66.3	41.6	53,900		20	71.3	52.4	53,800		21	73.5	62.6	49,800
	21	64.7	41.1	50,100		21	70.1	52.1	50,000		22	72.5	62.3	46,500
	22	63.1	40.6	46,800		22	68.8	51.7	46,700		23	71.5	62.0	43,600
	23	61.5	40.1	43,900		23	67.6	51.2	43,800		24	70.5	61.6	41,000
	24	59.8	39.5	41,300		24	66.3	50.8	41,200		25	69.5	61.2	38,700
	25	58.1	38.9	39,000		25	65.1	50.3	38,900		26	68.4	60.8	36,600
	26	56.4	38.2	37,000		26	63.8	49.8	36,800		27	67.4	60.4	34,800
	27	54.6	37.5	35,100		27	62.5	49.3	34,900		28	66.3	60.0	33,100
	28	52.8	36.7	33,400		28	61.2	48.7	33,200		29	65.3	59.5	31,500
	29	51.0	35.9	31,800		29	59.9	48.2	31,700		30	64.2	59.0	30,100
	30	49.1	35.0	30,400		30	58.5	47.5	30,300		32	62.1	58.0	27,600
	32	45.1	33.1	27,900		32	55.7	46.2	27,800		34	59.9	56.8	25,400
40	34	40.8	30.8	25,800	50	34	52.9	44.7	25,600	60	36	57.6	55.6	23,600
	36	36.0	28.2	23,900		36	49.9	43.1	23,700		38	55.3	54.2	21,900
	38	30.7	25.0	22,300		38	46.8	41.2	22,100		40	52.9	52.7	20,500
	40	24.2	21.0	20,800		40	43.5	39.2	20,700		45	46.6	48.4	17,600
						45	34.2	32.7	17,700		50	39.5	42.8	15,300
						50	21.5	22.9	15,500		55	31.0	35.6	13,500
											60	19.5	24.6	12,000

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
70	14	81.8	74.5	95,600*	90	36	69.1	89.1	23,100	120	21	81.9	124.0	49,100
	15	81.0	74.3	85,400		38	67.8	88.3	21,500		22	81.4	123.8	45,800
	16	80.1	74.2	76,400		40	66.4	87.5	20,100		23	80.9	123.7	42,800
	17	79.3	74.0	69,100		45	62.8	85.0	17,100		24	80.4	123.5	40,200
	18	78.4	73.7	63,000		50	59.2	82.2	14,800		25	79.9	123.3	37,900
	19	77.6	73.5	57,900		55	55.4	78.9	13,000		26	79.4	123.1	35,800
	20	76.8	73.3	53,500		60	51.4	75.1	11,500		27	78.9	122.9	33,900
	21	75.9	73.0	49,700		65	47.1	70.7	10,300		28	78.5	122.7	32,200
	22	75.1	72.8	46,400		70	42.6	65.6	9,300		29	78.0	122.5	30,600
	23	74.2	72.5	43,500		75	37.6	59.6	8,400		30	77.5	122.3	29,200
80	24	73.4	72.2	40,900	100	80	31.9	52.2	7,600	130	32	76.5	121.8	26,700
	25	72.5	71.8	38,600		85	25.1	42.8	7,000		34	75.5	121.3	24,500
	26	71.6	71.5	36,500		90	15.8	29.0	6,400		36	74.5	120.8	22,600
	27	70.8	71.2	34,600		18	81.9	104.2	62,700		38	73.5	120.2	21,000
	28	69.9	70.8	32,900		19	81.4	104.1	57,500		40	72.5	119.5	19,600
	29	69.0	70.4	31,400		20	80.8	103.9	53,100		45	70.0	117.8	16,600
	30	68.1	70.0	29,900		21	80.2	103.7	49,300		50	67.4	115.8	14,300
	32	66.4	69.1	27,400		22	79.6	103.5	46,000		55	64.8	113.6	12,500
	34	64.5	68.2	25,300		23	79.0	103.4	43,100		60	62.1	111.0	11,000
	36	62.7	67.2	23,400		24	78.5	103.1	40,500		65	59.4	108.2	9,800
90	38	60.8	66.1	21,800	110	25	77.9	102.9	38,200	140	70	56.6	105.0	8,800
	40	58.9	64.9	20,300		26	77.3	102.7	36,100		75	53.6	101.5	7,900
	45	54.0	61.5	17,400		27	76.7	102.5	34,200		80	50.6	97.5	7,100
	50	48.7	57.4	15,100		28	76.1	102.2	32,500		85	47.4	93.1	6,400
	55	42.9	52.4	13,300		29	75.5	101.9	30,900		90	44.0	88.2	5,900
	60	36.4	46.2	11,800		30	74.9	101.7	29,500		95	40.5	82.6	5,300
	65	28.6	38.2	10,600		32	73.7	101.1	27,000		100	36.6	76.2	4,900
	70	18.0	26.2	9,600		34	72.5	100.5	24,800		105	32.3	68.8	4,500
	16	81.4	84.3	76,300	120	36	71.3	99.8	23,000		110	27.5	60.0	4,100
	17	80.6	84.1	68,900		38	70.1	99.1	21,300		115	21.7	48.9	3,700
	18	79.9	84.0	62,900		40	68.9	98.3	19,900	150	22	82.0	134.0	45,600
	19	79.2	83.8	57,700		45	65.7	96.2	16,900		23	81.6	133.8	42,700
	20	78.5	83.5	53,300		50	62.6	93.7	14,600		24	81.1	133.7	40,100
	21	77.7	83.3	49,500		55	59.3	90.9	12,800		25	80.7	133.5	37,800
	22	77.0	83.1	46,200		60	55.8	87.6	11,400		26	80.3	133.3	35,700
	23	76.2	82.8	43,300		65	52.3	83.9	10,100		27	79.8	133.1	33,800
	24	75.5	82.6	40,700		70	48.5	79.7	9,100		28	79.4	132.9	32,100
	25	74.8	82.3	38,400		75	44.6	74.9	8,200		29	78.9	132.7	30,500
	26	74.0	82.0	36,300		80	40.3	69.3	7,500		30	78.5	132.5	29,100
	27	73.3	81.7	34,400		85	35.6	62.8	6,800		32	77.6	132.1	26,500
100	28	72.5	81.4	32,700	130	90	30.2	54.9	6,200	160	34	76.6	131.6	24,400
	29	71.8	81.1	31,200		95	23.8	44.9	5,700		36	75.7	131.1	22,500
	30	71.0	80.7	29,800		20	81.6	114.0	53,000		38	74.8	130.6	20,800
	32	69.5	80.0	27,200		21	81.1	113.9	49,200		40	73.9	130.0	19,400
	34	67.9	79.2	25,100		22	80.6	113.7	45,800		45	71.6	128.4	16,400
	36	66.4	78.3	23,200		23	80.0	113.5	42,900		50	69.3	126.6	14,200
	38	64.8	77.4	21,600		24	79.5	113.3	40,300		55	66.9	124.6	12,300
	40	63.2	76.4	20,100		25	79.0	113.1	38,000		60	64.4	122.3	10,900
	45	59.1	73.5	17,200		26	78.5	112.9	35,900		65	62.0	119.7	9,600
	50	54.8	70.2	14,900		27	77.9	112.7	34,000		70	59.4	116.8	8,600
110	55	50.2	66.3	13,100	140	28	77.4	112.5	32,300	170	75	56.8	113.7	7,700
	60	45.3	61.6	11,600		29	76.9	112.3	30,800		80	54.1	110.2	6,900
	65	40.0	56.1	10,400		30	76.3	112.0	29,300		85	51.4	106.3	6,300
	70	33.9	49.3	9,400		32	75.2	111.5	26,800		90	48.5	102.1	5,700
	75	26.7	40.6	8,500		34	74.2	110.9	24,600		95	45.4	97.4	5,200
	80	16.8	27.6	7,700		36	73.1	110.3	22,800		100	42.2	92.1	4,700
	17	81.7	94.3	68,900		38	72.0	109.7	21,100		105	38.8	86.1	4,300
	18	81.0	94.1	62,800		40	70.9	109.0	19,700		110	35.1	79.4	3,900
	19	80.4	93.9	57,700		45	68.1	107.1	16,700		115	31.0	71.6	3,600
	20	79.8	93.7	53,300		50	65.2	104.9	14,400		120	26.4	62.3	3,200
120	21	79.1	93.6	49,500	150	55	62.3	102.4	12,600	180	125	20.8	50.7	3,000
	22	78.5	93.3	46,200		60	59.3	99.5	11,100					
	23	77.8	93.1	43,200		65	56.2	96.3	9,900					
	24	77.1	92.9	40,700		70	53.0	92.7	8,900					
	25	76.5	92.6	38,300		75	49.7	88.6	8,000					
	26	75.8	92.4	36,300		80	46.1	84.1	7,200					
	27	75.2	92.1	34,400		85	42.4	78.8	6,600					
	28	74.5	91.8	32,700		90	38.3	72.9	6,000					
	29	73.9	91.6	31,100		95	33.8	65.9	5,500					
	30	73.2	91.2	29,700		100	28.8	57.5	5,000					
130	32	71.8	90.6	27,200	160	105	22.7	46.9	4,600					
	34	70.5	89.9	25,000										
	17	81.7	94.3	68,900	170					190				
	18	81.0	94.1	62,800										
	19	80.4	93.9	57,700										
	20	79.8	93.7	53,300										
	21	79.1	93.6	49,500										
	22	78.5	93.3	46,200										
	23	77.8	93.1	43,200										
	24	77.1	92.9	40,700										
	25	76.5	92.6	38,300										
	26	75.8	92.4	36,300										

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BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS	BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
140	24	81.8	143.8	39,900	160	27	81.7	163.6	32,000*	180	30	81.7	183.3	23,900*
	25	81.4	143.6	37,600		28	81.4	163.4	31,600		32	81.0	183.0	23,700*
	26	81.0	143.5	35,500		29	81.0	163.2	30,100		34	80.4	182.7	23,600*
	27	80.5	143.3	33,600		30	80.6	163.1	28,600		36	79.8	182.3	21,700
	28	80.1	143.1	31,900		32	79.9	162.7	26,100		38	79.1	181.9	20,100
	29	79.7	142.9	30,300		34	79.2	162.3	23,900		40	78.5	181.5	18,600
	30	79.3	142.7	28,900		36	78.5	161.9	22,000		45	76.8	180.4	15,600
	32	78.5	142.3	26,300		38	77.7	161.5	20,400		50	75.2	179.1	13,400
	34	77.6	141.9	24,200		40	77.0	161.0	18,900		55	73.5	177.7	11,500
	36	76.8	141.4	22,300		45	75.1	159.8	16,000		60	71.9	176.1	10,000
	38	75.9	140.9	20,700		50	73.3	158.3	13,700		65	70.2	174.4	8,800
	40	75.1	140.4	19,200		55	71.4	156.7	11,900		70	68.5	172.5	7,800
	45	73.0	138.9	16,200		60	69.5	154.9	10,400		75	66.7	170.4	6,900
	50	70.8	137.3	13,900		65	67.6	152.9	9,100		80	65.0	168.1	6,100
	55	68.6	135.4	12,100		70	65.6	150.7	8,100		85	63.2	165.7	5,400
	60	66.4	133.3	10,600		75	63.6	148.3	7,200		90	61.4	163.0	4,800
	65	64.1	130.9	9,400		80	61.6	145.7	6,400		95	59.6	160.1	4,300
	70	61.8	128.4	8,400		85	59.5	142.8	5,800		100	57.7	157.1	3,900
	75	59.5	125.5	7,500		90	57.4	139.7	5,200		105	55.8	153.8	3,400
	80	57.1	122.4	6,700		95	55.3	136.4	4,700		110	53.9	150.2	3,100
150	85	54.6	118.9	6,100	170	100	53.1	132.7	4,200	190	115	51.9	146.4	2,700
	90	52.0	115.2	5,500		105	50.8	128.7	3,800		120	50.8	128.7	3,800
	95	49.4	111.0	5,000		110	48.4	124.4	3,400		125	48.4	124.4	3,400
	100	46.6	106.4	4,500		115	46.0	119.8	3,000		130	46.0	119.8	3,000
	105	43.7	101.4	4,100		120	43.4	114.7	2,700		135	43.4	114.7	2,700
	110	40.6	95.8	3,700		125	40.6	109.8	2,400		140	40.6	109.8	2,400
	115	37.3	89.6	3,300		130	37.3	104.7	2,100		145	37.3	104.7	2,100
	120	33.8	82.5	3,000		135	33.8	99.6	1,800		150	33.8	99.6	1,800
	125	29.9	74.3	2,700		140	29.9	94.5	1,500		155	29.9	94.5	1,500
	130	25.4	64.6	2,500		145	25.4	89.4	1,300		160	25.4	89.4	1,300
	25	81.9	153.7	37,200*		150	21.9	79.4	1,100		165	21.9	79.4	1,100
	26	81.6	153.6	35,400		155	21.9	79.4	1,100		170	21.9	79.4	1,100
	27	81.2	153.4	33,500		160	21.9	79.4	1,100		175	21.9	79.4	1,100
	28	80.8	153.3	31,800		165	21.9	79.4	1,100		180	21.9	79.4	1,100
	29	80.4	153.1	30,200		170	21.9	79.4	1,100		185	21.9	79.4	1,100
	30	80.0	152.9	28,800		175	21.9	79.4	1,100		190	21.9	79.4	1,100
	32	79.2	152.5	26,200		180	21.9	79.4	1,100		195	21.9	79.4	1,100
	34	78.5	152.1	24,100		185	21.9	79.4	1,100		200	21.9	79.4	1,100
	36	77.7	151.7	22,200		190	21.9	79.4	1,100		205	21.9	79.4	1,100
	38	76.9	151.2	20,600		195	21.9	79.4	1,100		210	21.9	79.4	1,100
	40	76.1	150.7	19,100		200	21.9	79.4	1,100		215	21.9	79.4	1,100
	45	74.1	149.4	16,100		205	21.9	79.4	1,100		220	21.9	79.4	1,100
	50	72.1	147.8	13,800		210	21.9	79.4	1,100		225	21.9	79.4	1,100
	55	70.1	146.1	12,000		215	21.9	79.4	1,100		230	21.9	79.4	1,100
	60	68.1	144.2	10,500		220	21.9	79.4	1,100		235	21.9	79.4	1,100
	65	66.0	142.0	9,300		225	21.9	79.4	1,100		240	21.9	79.4	1,100
	70	63.9	139.6	8,300		230	21.9	79.4	1,100		245	21.9	79.4	1,100
	75	61.7	137.0	7,400		235	21.9	79.4	1,100		250	21.9	79.4	1,100
	80	59.5	134.2	6,600		240	21.9	79.4	1,100		255	21.9	79.4	1,100
	85	57.3	131.0	6,000		245	21.9	79.4	1,100		260	21.9	79.4	1,100
	90	54.9	127.6	5,400		250	21.9	79.4	1,100		265	21.9	79.4	1,100
	95	52.6	123.9	4,800		255	21.9	79.4	1,100		270	21.9	79.4	1,100
	100	50.1	119.9	4,400		260	21.9	79.4	1,100		275	21.9	79.4	1,100
	105	47.6	115.5	4,000		265	21.9	79.4	1,100		280	21.9	79.4	1,100
	110	44.9	110.6	3,600		270	21.9	79.4	1,100		285	21.9	79.4	1,100
	115	42.1	105.3	3,200		275	21.9	79.4	1,100		290	21.9	79.4	1,100
	120	39.2	99.4	2,900		280	21.9	79.4	1,100		295	21.9	79.4	1,100
	125	36.0	92.8	2,600		285	21.9	79.4	1,100		300	21.9	79.4	1,100

