

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.

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			
34	40.8	30.8	25,800	34	52.9	44.7	25,600	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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19'6" CRAWLERS EXTENDED
360 DEGREE RATING

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

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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
85	54.6	118.9	6,100	100	53.1	132.7	4,200	115	51.9	146.4	2,700			
90	52.0	115.2	5,500	105	50.8	128.7	3,800							
95	49.4	111.0	5,000	110	48.4	124.4	3,400							
100	46.6	106.4	4,500	115	46.0	119.8	3,000							
105	43.7	101.4	4,100	120	43.4	114.7	2,700							
110	40.6	95.8	3,700											
115	37.3	89.6	3,300											
120	33.8	82.5	3,000											
125	29.9	74.3	2,700											
130	25.4	64.6	2,500											
150	25	81.9	153.7	37,200*	170	29	81.5	173.4	27,400*					
	26	81.6	153.6	35,400		30	81.2	173.2	27,300*					
	27	81.2	153.4	33,500		32	80.5	172.9	25,900					
	28	80.8	153.3	31,800		34	79.8	172.5	23,700					
	29	80.4	153.1	30,200		36	79.1	172.1	21,800					
	30	80.0	152.9	28,800		38	78.5	171.7	20,200					
	32	79.2	152.5	26,200		40	77.8	171.3	18,700					
	34	78.5	152.1	24,100		45	76.0	170.1	15,800					
	36	77.7	151.7	22,200		50	74.3	168.8	13,500					
	38	76.9	151.2	20,600		55	72.5	167.2	11,600					
	40	76.1	150.7	19,100		60	70.8	165.6	10,200					
	45	74.1	149.4	16,100		65	69.0	163.7	8,900					
	50	72.1	147.8	13,800		70	67.1	161.6	7,900					
	55	70.1	146.1	12,000		75	65.3	159.4	7,000					
	60	68.1	144.2	10,500		80	63.4	157.0	6,200					
	65	66.0	142.0	9,300		85	61.5	154.3	5,600					
	70	63.9	139.6	8,300		90	59.6	151.5	5,000					
	75	61.7	137.0	7,400		95	57.6	148.4	4,400					
	80	59.5	134.2	6,600		100	55.6	145.1	4,000					
	85	57.3	131.0	6,000		105	53.5	141.5	3,600					
90	54.9	127.6	5,400	110	51.3	137.6	3,200							
95	52.6	123.9	4,800	115	49.1	133.4	2,800							
100	50.1	119.9	4,400	120	46.9	128.8	2,500							
105	47.6	115.5	4,000											
110	44.9	110.6	3,600											
115	42.1	105.3	3,200											
120	39.2	99.4	2,900											
125	36.0	92.8	2,600											

