

**MANITOWOC ENGINEERING CO.**

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

**LIFTCRANE CAPACITIES**MEETS
ANSI B30.5
REQUIREMENTS**M-65W****BOOM NO. 46
42,000 LB. COUNTERWEIGHT
22'4" 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 (16'8-1/2") AND GANTRY UP. REFER TO RIGGING NO. 168744 AND WIRE ROPE SPECIFICATION CHART NO. 7523-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 22'4" EXTENDIBLE CRAWLERS, 36" TREADS, 17' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, TWO 1-1/4" BOOM PENDANTS, 1ST COUNTERWEIGHT = 35,000 LBS., 2ND COUNTERWEIGHT = 7,000 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
190'	---	190'	---	30'	1,800 LBS.
180'	50'	180'	---	40'	2,200 LBS.
170'	60'	170'	40'	50'	2,600 LBS.
		160'	60'	60'	3,100 LBS.

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	44.7	150,000*	50	12	80.8	54.9	142,400*	60	13	81.4	64.9	126,900*
	13	77.0	44.4	150,000*		13	79.6	54.7	140,800*		14	80.4	64.7	125,400*
	14	75.5	44.2	150,000*		14	78.4	54.5	139,400*		15	79.4	64.5	123,900*
	15	74.0	43.9	143,300		15	77.3	54.3	138,000*		16	78.4	64.3	122,100*
	16	72.5	43.6	126,900		16	76.1	54.0	126,900		17	77.5	64.1	113,700
	17	71.0	43.2	113,900		17	74.9	53.7	113,800		18	76.5	63.8	103,000
	18	69.4	42.8	103,200		18	73.7	53.4	103,200		19	75.5	63.5	94,100
	19	67.9	42.4	94,400		19	72.5	53.1	94,300		20	74.5	63.3	86,600
	20	66.3	42.0	86,900		20	71.3	52.8	86,800		21	73.5	63.0	80,200
	21	64.7	41.5	80,400		21	70.1	52.4	80,300		22	72.5	62.6	74,600
	22	63.1	41.0	74,900		22	68.8	52.0	74,800		23	71.5	62.3	69,700
	23	61.5	40.4	70,000		23	67.6	51.6	69,900		24	70.5	61.9	65,400
	24	59.8	39.8	65,700		24	66.3	51.1	65,600		25	69.5	61.6	61,600
	25	58.1	39.2	61,900		25	65.1	50.7	61,800		26	68.4	61.2	58,200
	26	56.4	38.5	58,500		26	63.8	50.2	58,400		27	67.4	60.7	55,100
	27	54.6	37.8	55,400		27	62.5	49.6	55,300		28	66.3	60.3	52,400
	28	52.8	37.0	52,700		28	61.2	49.1	52,500		29	65.3	59.8	49,800
	29	51.0	36.2	50,200		29	59.9	48.5	50,000		30	64.2	59.3	47,500
	30	49.1	35.3	47,900		30	58.5	47.9	47,700		32	62.1	58.3	43,500
	32	45.1	33.4	43,800		32	55.7	46.5	43,700		34	59.9	57.1	40,000
40	34	40.8	31.2	40,400	50	34	52.9	45.0	40,200		36	57.6	55.9	37,000
	36	36.0	28.5	37,400		36	49.9	43.4	37,200		38	55.3	54.5	34,500
	38	30.7	25.3	34,800		38	46.8	41.5	34,700		40	52.9	53.0	32,200
	40	24.2	21.3	32,500		40	43.5	39.5	32,400		45	46.6	48.7	27,500
						45	34.2	33.1	27,700		50	39.5	43.2	24,000
						50	21.5	23.2	24,200		55	31.0	35.9	21,200
											60	19.5	24.9	18,900

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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	74.8	112,800*	90	36	69.1	89.5	36,600	120	21	81.9	124.3	61,300*
	15	81.0	74.7	111,200*		38	67.8	88.7	34,000		22	81.4	124.2	60,600*
	16	80.1	74.5	108,800*		40	66.4	87.8	31,700		23	80.9	124.0	59,900*
	17	79.3	74.3	106,600*		45	62.8	85.4	27,100		24	80.4	123.8	59,200*
	18	78.4	74.1	103,000		50	59.2	82.5	23,500		25	79.9	123.7	58,500*
	19	77.6	73.9	94,100		55	55.4	79.2	20,700		26	79.4	123.5	57,300
	20	76.8	73.6	86,500		60	51.4	75.5	18,400		27	78.9	123.3	54,300
	21	75.9	73.4	80,100		65	47.1	71.1	16,500		28	78.5	123.1	51,500
	22	75.1	73.1	74,500		70	42.6	65.9	14,900		29	78.0	122.9	48,900
	23	74.2	72.8	69,600		75	37.6	59.9	13,500		30	77.5	122.6	46,600
80	24	73.4	72.5	65,300	100	80	31.9	52.5	12,300		32	76.5	122.2	42,500
	25	72.5	72.2	61,500		85	25.1	43.1	11,300		34	75.5	121.6	39,000
	26	71.6	71.8	58,100		90	15.8	29.3	10,400		36	74.5	121.1	36,100
	27	70.8	71.5	55,000		18	81.9	104.6	77,400*		38	73.5	120.5	33,400
	28	69.9	71.1	52,200		19	81.4	104.4	76,300*		40	72.5	119.9	31,200
	29	69.0	70.7	49,700		20	80.8	104.2	75,200*		45	70.0	118.1	26,500
	30	68.1	70.3	47,400		21	80.2	104.1	74,100*		50	67.4	116.2	22,900
	32	66.4	69.5	43,300		22	79.6	103.9	73,000*		55	64.8	113.9	20,100
	34	64.5	68.5	39,900		23	79.0	103.7	69,200		60	62.1	111.4	17,800
	36	62.7	67.5	36,900		24	78.5	103.5	64,900		65	59.4	108.5	15,900
90	38	60.8	66.4	34,300	110	25	77.9	103.3	61,100		70	56.6	105.3	14,300
	40	58.9	65.2	32,000		26	77.3	103.0	57,700		75	53.6	101.8	12,900
	45	54.0	61.8	27,400		27	76.7	102.8	54,600		80	50.6	97.8	11,700
	50	48.7	57.7	23,800		28	76.1	102.5	51,800		85	47.4	93.4	10,700
	55	42.9	52.7	21,000		29	75.5	102.3	49,300		90	44.0	88.5	9,800
	60	36.4	46.5	18,700		30	74.9	102.0	46,900		95	40.5	82.9	9,000
	65	28.6	38.5	16,800		32	73.7	101.4	42,900		100	36.6	76.5	8,300
	70	18.0	26.5	15,200		34	72.5	100.8	39,400		105	32.3	69.2	7,700
	16	81.4	84.6	99,600*	130	36	71.3	100.1	36,400		110	27.5	60.3	7,100
	17	80.6	84.5	97,900*		38	70.1	99.4	33,800		115	21.7	49.2	6,600
	18	79.9	84.3	96,200*		40	68.9	98.6	31,500		22	82.0	134.3	54,300*
	19	79.2	84.1	93,900		45	65.7	96.5	26,900		23	81.6	134.1	53,700*
	20	78.5	83.9	86,400		50	62.6	94.0	23,300		24	81.1	134.0	53,200*
	21	77.7	83.7	79,900		55	59.3	91.2	20,500		25	80.7	133.8	52,600*
	22	77.0	83.4	74,300		60	55.8	88.0	18,200		26	80.3	133.6	52,100*
	23	76.2	83.2	69,500		65	52.3	84.3	16,300		27	79.8	133.5	51,500*
	24	75.5	82.9	65,100		70	48.5	80.1	14,700		28	79.4	133.3	50,900*
	25	74.8	82.6	61,300		75	44.6	75.2	13,300		29	78.9	133.1	48,800
100	26	74.0	82.3	57,900	110	80	40.3	69.7	12,200		30	78.5	132.9	46,400
	27	73.3	82.0	54,800		85	35.6	63.1	11,100		32	77.6	132.4	42,400
	28	72.5	81.7	52,000		90	30.2	55.3	10,200		34	76.6	132.0	38,900
	29	71.8	81.4	49,500		95	23.8	45.3	9,400		36	75.7	131.5	35,900
	30	71.0	81.0	47,200		20	81.6	114.4	69,000*		38	74.8	130.9	33,300
	32	69.5	80.3	43,100		21	81.1	114.2	68,000*		40	73.9	130.3	31,000
	34	67.9	79.5	39,700		22	80.6	114.0	67,100*		45	71.6	128.8	26,300
	36	66.4	78.6	36,700		23	80.0	113.9	66,100*		50	69.3	126.9	22,700
	38	64.8	77.7	34,100		24	79.5	113.7	64,700		55	66.9	124.9	19,900
	40	63.2	76.7	31,800		25	79.0	113.5	60,900		60	64.4	122.6	17,600
110	45	59.1	73.9	27,200	130	26	78.5	113.3	57,500		65	62.0	120.0	15,700
	50	54.8	70.5	23,600		27	77.9	113.1	54,400		70	59.4	117.2	14,100
	55	50.2	66.6	20,800		28	77.4	112.8	51,600		75	56.8	114.0	12,700
	60	45.3	62.0	18,500		29	76.9	112.6	49,000		80	54.1	110.5	11,600
	65	40.0	56.4	16,600		30	76.3	112.3	46,700		85	51.4	106.7	10,500
	70	33.9	49.6	15,000		32	75.2	111.8	42,700		90	48.5	102.4	9,600
	75	26.7	40.9	13,600		34	74.2	111.3	39,200		95	45.4	97.7	8,800
	80	16.8	28.0	12,500		36	73.1	110.7	36,200		100	42.2	92.4	8,100
	17	81.7	94.6	87,200*		38	72.0	110.0	33,600		105	38.8	86.5	7,500
	18	81.0	94.4	85,700*		40	70.9	109.3	31,300		110	35.1	79.7	6,900
120	19	80.4	94.3	84,300*		45	68.1	107.4	26,600		115	31.0	72.0	6,400
	20	79.8	94.1	83,000*		50	65.2	105.2	23,100		120	26.4	62.7	5,900
	21	79.1	93.9	79,900		55	62.3	102.7	20,200		125	20.8	51.0	5,400
	22	78.5	93.7	74,300		60	59.3	99.9	17,900					
	23	77.8	93.5	69,400		65	56.2	96.6	16,000					
	24	77.1	93.2	65,100		70	53.0	93.0	14,400					
	25	76.5	93.0	61,200		75	49.7	89.0	13,100					
	26	75.8	92.7	57,800		80	46.1	84.4	11,900					
	27	75.2	92.5	54,700		85	42.4	79.2	10,900					
	28	74.5	92.2	51,900		90	38.3	73.2	10,000					

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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
140	24	81.8	144.1	48,200*	160	27	81.7	163.9	35,000*	180	30	81.7	183.7	25,800*
	25	81.4	144.0	47,800*		28	81.4	163.7	34,900*		32	81.0	183.3	25,600*
	26	81.0	143.8	47,300*		29	81.0	163.6	34,900*		34	80.4	183.0	25,500*
	27	80.5	143.6	46,800*		30	80.6	163.4	34,800*		36	79.8	182.6	25,300*
	28	80.1	143.4	46,300*		32	79.9	163.0	34,600*		38	79.1	182.3	25,000*
	29	79.7	143.3	45,800*		34	79.2	162.7	34,400*		40	78.5	181.9	24,600*
	30	79.3	143.1	45,300*		36	78.5	162.3	34,200*		45	76.8	180.7	23,700*
	32	78.5	142.7	42,100		38	77.7	161.8	32,700		50	75.2	179.5	21,800
	34	77.6	142.2	38,700		40	77.0	161.4	30,500		55	73.5	178.0	19,000
	36	76.8	141.8	35,700		45	75.1	160.1	25,800		60	71.9	176.5	16,600
	38	75.9	141.3	33,100		50	73.3	158.7	22,200		65	70.2	174.7	14,700
	40	75.1	140.7	30,800		55	71.4	157.0	19,300		70	68.5	172.8	13,100
	45	73.0	139.3	26,100		60	69.5	155.2	17,000		75	66.7	170.7	11,800
	50	70.8	137.6	22,500		65	67.6	153.2	15,100		80	65.0	168.4	10,600
	55	68.6	135.7	19,700		70	65.6	151.0	13,500		85	63.2	166.0	9,500
	60	66.4	133.6	17,400		75	63.6	148.6	12,100		90	61.4	163.3	8,600
	65	64.1	131.3	15,500		80	61.6	146.0	11,000		95	59.6	160.5	7,800
	70	61.8	128.7	13,900		85	59.5	143.2	9,900		100	57.7	157.4	7,100
	75	59.5	125.8	12,500		90	57.4	140.1	9,000		105	55.8	154.1	6,500
	80	57.1	122.7	11,300		95	55.3	136.7	8,200		110	53.9	150.5	5,900
150	85	54.6	119.3	10,300	170	100	53.1	133.0	7,500	190	115	51.9	146.7	5,400
	90	52.0	115.5	9,400		105	50.8	129.1	6,900		120	49.8	142.6	4,900
	95	49.4	111.3	8,600		110	48.4	124.8	6,300		125	47.7	138.2	4,400
	100	46.6	106.8	7,900		115	46.0	120.1	5,800		130	45.5	133.4	4,000
	105	43.7	101.7	7,200		120	43.4	115.0	5,300		135	43.2	128.2	3,700
	110	40.6	96.2	6,600		125	40.7	109.4	4,800		140	40.8	122.6	3,300
	115	37.3	89.9	6,100		130	37.9	103.2	4,400		145	38.3	116.5	3,000
	120	33.8	82.8	5,600		135	34.8	96.3	4,100		32	81.5	193.5	22,300*
	125	29.9	74.6	5,200		140	31.5	88.6	3,700		34	80.9	193.1	22,100*
	130	25.4	64.9	4,800		145	27.9	79.7	3,400		36	80.3	192.8	21,800*
	135	20.0	52.8	4,400		150	23.7	69.2	3,100		38	79.7	192.4	21,400*
	25	81.9	154.1	40,900*		29	81.5	173.7	30,100*		40	79.1	192.1	21,100*
	26	81.6	153.9	40,800*		30	81.2	173.5	30,000*		45	77.5	191.0	20,200*
	27	81.2	153.8	40,700*		32	80.5	173.2	29,900*		50	76.0	189.8	19,400*
	28	80.8	153.6	40,600*		34	79.8	172.8	29,700*		55	74.4	188.5	18,700*
	29	80.4	153.4	40,500*		36	79.1	172.5	29,500*		60	72.8	187.0	16,400
	30	80.0	153.2	40,400*		38	78.5	172.1	29,300*		65	71.3	185.3	14,500
	32	79.2	152.9	39,800*		40	77.8	171.6	29,100*		70	69.7	183.5	12,900
	34	78.5	152.5	38,500		45	76.0	170.4	25,500		75	68.0	181.6	11,500
	36	77.7	152.0	35,500		50	74.3	169.1	21,900		80	66.4	179.4	10,400
	38	76.9	151.6	32,900		55	72.5	167.6	19,100		85	64.7	177.1	9,300
	40	76.1	151.1	30,600		60	70.8	165.9	16,800		90	63.1	174.7	8,400
	45	74.1	149.7	26,000		65	69.0	164.0	14,900		95	61.3	172.0	7,600
	50	72.1	148.2	22,400		70	67.1	162.0	13,300		100	59.6	169.1	6,900
	55	70.1	146.4	19,500		75	65.3	159.7	11,900		105	57.8	166.1	6,300
	60	68.1	144.5	17,200		80	63.4	157.3	10,700		110	56.0	162.8	5,700
	65	66.0	142.3	15,300		85	61.5	154.7	9,700		115	54.2	159.3	5,100
	70	63.9	140.0	13,700		90	59.6	151.8	8,800		120	52.3	155.5	4,700
	75	61.7	137.4	12,300		95	57.6	148.7	8,000		125	50.4	151.5	4,200
	80	59.5	134.5	11,200		100	55.6	145.4	7,300		130	48.4	147.1	3,800
	85	57.3	131.4	10,100		105	53.5	141.8	6,600		135	46.3	142.5	3,400
	90	54.9	128.0	9,200		110	51.3	137.9	6,000		140	44.2	137.5	3,100
	95	52.6	124.3	8,400		115	49.1	133.7	5,500					
	100	50.1	120.2	7,700		120	46.9	129.2	5,000					
	105	47.6	115.8	7,100		125	44.5	124.2	4,600					
	110	44.9	111.0	6,500		130	42.0	118.9	4,200					
	115	42.1	105.6	6,000		135	39.4	113.0	3,800					
	120	39.2	99.7	5,500		140	36.7	106.5	3,500					
	125	36.0	93.2	5,000		145	33.7	99.4	3,200					
	130	32.6	85.8	4,600										
	135	28.8	77.2	4,300										
	140	24.5	67.1	3,900										
	145	19.3	54.5	3,600										

