

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

BOOM NO. 44 WITH HEAVY LIFT TOP
167,000 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-250

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 30,000 LBS. OR 60,000 LBS. WITH TWO PART WHIP LINE. IN ALL CASES, UPPER BOOM POINT CAPACITIES CANNOT EXCEED THOSE LISTED FOR THE MAIN BOOM CAPACITY.

250' THRU 300' BOOM LENGTHS REQUIRE ONLY THE MIDDLE 3 SHEAVES TO BE USED ON THE LOWER BOOM POINT. ALL OTHER SHEAVES MUST BE REMOVED FROM THE LOWER BOOM POINT.

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 GANTRY UP. REFER TO BOOM RIGGING NO. 172610 AND WIRE ROPE SPECIFICATION CHART NO. 7581-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 WITHIN WIND LIMITS SHOWN IN TABLE 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 AND LOWERING BOOM AND JIB TO APPROXIMATELY 70 DEGREE BOOM ANGLE WHEN WIND EXCEEDS THOSE SHOWN IN TABLE TO PREVENT JIB BEING BLOWN OVER BACKWARDS. LOWER BOOM AND JIB TO GROUND WHEN WIND IS ABOVE 50 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 30'9" CRAWLERS, 48" TREADS, 28' RETRACTABLE GANTRY, 12 PART BOOM HOIST REEVING, FOUR 1-1/2" BOOM PENDANTS, AND 167,000 LB. COUNTERWEIGHT.

WIND LIMITS DURING OPERATION		
MAXIMUM WIND VELOCITY	BOOM LENGTH	JIB LENGTH
MPH	FEET	FEET
30	70 - 200	---
25	210 - 240	---
20	250 - 300	---
25	130 - 210	40 - 80
20	220 - 250	40 - 80
15	260	40 - 60
25	130 - 200	100 - 120
20	210 - 230	100 - 120
20	240	100

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED						DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
OVER FRONT OF BLOCKED CRAWLERS		OVER REAR OF BLOCKED CRAWLERS		OVER SIDE OF CRAWLERS			
BOOM LGTH.	JIB NO. 132	BOOM LGTH.	JIB NO. 132	BOOM LGTH.	JIB NO. 132	JIB LGTH.	JIB NO. 132
(a) 300'	---	(a) 290'	---	260'	---	40'	6,400 LBS.
290'	---	280'	---	250'	---	60'	8,200 LBS.
280'	---	270'	---	240'	---	80'	10,300 LBS.
270'	---	260'	40'	230'	60'	100'	12,800 LBS.
260'	60'	250'	60'	220'	80'	120'	15,300 LBS.
250'	80'	240'	80'	210'	120'		
240'	100'	230'	100'				
230'	120'	220'	120'				
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START. (a) UPPER BOOM POINT CANNOT BE USED ON 300' BOOM AND CANNOT BE LIFTED OVER REAR OF BLOCKED CRAWLERS ON 290' BOOM.							

CONSULT JIB CHART FOR JIB CAPACITIES. UPPER BOOM POINT CANNOT BE USED WHEN JIB IS ATTACHED.

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MEETS
ANSI B30.5
REQUIREMENTS

M-250

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	18	82.9	77.1	551,200#	90	50	63.0	66.8	146,000	120	24	83.0	126.8	363,700#
	19	82.1	76.9	547,900#		55	59.3	83.9	127,500		25	82.5	126.6	361,400#
	20	81.3	76.8	545,600#		60	55.4	80.4	112,800		26	82.0	126.4	359,200#
	21	80.4	76.5	527,000#		65	51.3	76.5	100,900		27	81.6	126.3	357,000#
	22	79.6	76.3	504,500#		70	47.0	71.8	90,900		28	81.1	126.1	354,900#
	23	78.8	76.1	483,800#		75	42.3	66.5	82,600		29	80.6	125.9	337,300
	24	77.9	75.8	464,700#		80	37.1	60.0	75,400		30	80.1	125.7	318,300
	25	77.1	75.6	441,600		85	31.2	52.1	69,200		32	79.1	125.3	285,800
	26	76.2	75.3	410,500							34	78.1	124.8	259,100
	27	75.4	75.0	383,300							36	77.2	124.4	236,700
	28	74.5	74.7	359,400		22	82.8	106.8	479,300#	130	38	76.2	123.8	217,600
	29	73.7	74.4	338,200		23	82.2	106.7	476,300#		40	75.2	123.3	201,200
	30	72.8	74.0	319,300		24	81.6	106.5	462,200#		42	74.2	122.7	187,000
	32	71.0	73.3	287,000		25	81.0	106.3	441,500		44	73.2	122.0	174,500
80	34	69.3	72.4	260,400		26	80.4	106.1	410,300		46	72.2	121.4	163,400
	36	67.5	71.6	238,100		27	79.8	105.9	383,100		48	71.2	120.6	153,500
	38	65.7	70.6	219,100		28	79.3	105.7	359,100		50	70.1	119.9	144,700
	40	63.8	69.5	202,800		29	78.7	105.5	337,800		55	67.6	117.8	126,200
	42	61.9	68.4	188,600		30	78.1	105.2	318,900		60	64.9	115.5	111,400
	44	60.0	67.2	176,200		32	76.9	104.7	286,400		65	62.2	112.8	99,400
	46	58.1	65.9	165,100		34	75.7	104.2	259,700		70	59.5	109.9	89,500
	48	56.1	64.5	155,300		36	74.5	103.6	237,300		75	56.6	106.6	81,100
	50	54.0	62.9	146,500		38	73.3	103.0	218,300		80	53.6	102.9	73,900
	55	48.6	58.6	128,100		40	72.1	102.3	202,000		85	50.6	98.8	67,700
	60	42.6	53.2	113,400		42	70.9	101.5	187,700		90	47.3	94.2	62,300
	65	35.8	46.6	101,400		44	69.7	100.8	175,300		95	43.9	89.1	57,500
	70	27.4	37.6	91,500		46	68.4	99.9	164,200		100	40.2	83.3	53,300
90	20	82.4	86.9	526,400#	100	48	67.2	99.0	154,400		105	36.2	76.6	49,500
	21	81.7	86.7	523,600#		50	65.9	98.1	145,600		110	31.8	68.8	46,100
	22	80.9	86.5	503,500#		55	62.7	95.5	127,000		115	26.7	59.3	43,000
	23	80.2	86.3	482,900#		60	59.3	92.5	112,300	140	26	82.7	136.6	350,700#
	24	79.5	86.1	463,800#		65	55.9	89.2	100,400		27	82.2	136.4	348,700#
	25	78.7	85.9	441,600		70	52.3	85.3	90,400		28	81.8	136.2	346,700#
	26	78.0	85.6	410,400		75	48.5	80.9	82,000		29	81.3	136.1	337,400
	27	77.3	85.4	383,200		80	44.4	75.9	74,900		30	80.9	135.9	318,300
	28	76.5	85.1	359,300		85	40.0	70.0	68,700		32	80.0	135.5	285,800
	29	75.8	84.8	338,100		90	35.1	63.1	63,300		34	79.1	135.1	259,100
	30	75.0	84.5	319,200		95	29.5	54.7	58,500		36	78.2	134.6	236,600
	32	73.5	83.9	286,800		23	82.9	116.8	374,400#		38	77.3	134.2	217,600
	34	72.0	83.2	260,200		24	82.4	116.6	371,800#		40	76.4	133.6	201,200
	36	70.5	82.4	237,800		25	81.8	116.5	369,400#		42	75.4	133.1	186,900
	38	68.9	81.6	218,800		26	81.3	116.3	367,000#		44	74.5	132.5	174,400
100	40	67.3	80.7	202,500		27	80.8	116.1	364,700#		46	73.6	131.9	163,300
	42	65.8	79.8	188,300		28	80.3	115.9	358,900		48	72.7	131.2	153,500
	44	64.2	78.7	175,900		29	79.7	115.7	337,700		50	71.7	130.5	144,600
	46	62.5	77.6	164,800		30	79.2	115.5	318,700		55	69.4	128.7	126,100
	48	60.9	76.5	155,000		32	78.1	115.0	286,200		60	67.0	126.5	111,300
	50	59.2	75.2	146,200		34	77.0	114.6	259,500		65	64.5	124.1	99,300
	55	54.8	71.7	127,700		36	76.0	114.0	237,100		70	62.1	121.5	89,400
	60	50.2	67.6	113,000		38	74.9	113.4	218,100		75	59.5	118.5	81,000
	65	45.1	62.7	101,100		40	73.8	112.8	201,700		80	56.9	115.3	73,800
	70	39.6	56.8	91,100		42	72.7	112.2	187,400		85	54.2	111.7	67,600
	75	33.3	49.4	82,700		44	71.6	111.5	175,000		90	51.3	107.7	62,200
	80	25.4	39.7	75,600		46	70.5	110.7	163,900		95	48.4	103.3	57,400
						48	69.4	109.9	154,100		100	45.3	98.4	53,200
						50	68.2	109.1	145,200		105	42.0	92.9	49,400
						55	65.4	106.8	126,700		110	38.5	86.7	46,000
						60	62.4	104.2	112,000		115	34.7	79.7	42,900
						65	59.4	101.2	100,000		120	30.5	71.5	40,100
						70	56.3	97.9	90,100		125	25.6	61.5	37,600
						75	53.0	94.1	81,700					
						80	49.6	89.9	74,500					
						85	46.0	85.1	68,300					
						90	42.2	79.7	62,900					
						95	38.0	73.4	58,100					
						100	33.3	66.0	53,900					
						105	28.0	57.1	50,100					

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REQUIREMENTS

M-250

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
140	27	82.8	146.5	341,800
	28	82.4	146.4	340,000
	29	81.9	146.2	337,000
	30	81.5	146.0	318,000
	32	80.7	145.7	285,400
	34	79.9	145.3	258,600
	36	79.0	144.9	236,200
	38	78.2	144.4	217,100
	40	77.4	144.0	200,700
	42	76.5	143.5	186,400
	44	75.7	142.9	173,900
	46	74.8	142.3	162,800
	48	74.0	141.7	152,900
	50	73.1	141.1	144,100
	55	70.9	139.4	125,500
	60	68.7	137.4	110,700
	65	66.5	135.2	98,700
	70	64.2	132.8	88,800
	75	61.9	130.1	80,400
	80	59.5	127.2	73,200
150	85	57.1	124.0	67,000
	90	54.6	120.4	61,600
	95	52.0	116.5	56,800
	100	49.3	112.2	52,500
	105	46.5	107.5	48,800
	110	43.5	102.3	45,400
	115	40.4	96.5	42,300
	120	37.0	90.0	39,500
	125	33.4	82.6	36,900
	130	29.3	74.0	34,600
	28	82.9	156.5	302,400
	29	82.5	156.3	300,500
	30	82.1	156.2	298,600
	32	81.3	155.8	285,100
	34	80.6	155.5	258,300
	36	79.8	155.1	235,800
	38	79.0	154.7	216,700
	40	78.2	154.2	200,300
	42	77.4	153.8	186,000
	44	76.6	153.3	173,400
	46	75.8	152.7	162,300
	48	75.1	152.2	152,500
	50	74.3	151.6	143,600
	55	72.3	150.0	125,000
	60	70.2	148.2	110,200
	65	68.2	146.2	98,200
	70	66.1	143.9	88,300
	75	63.9	141.5	79,800
	80	61.8	138.8	72,700
	85	59.6	135.9	66,500
	90	57.3	132.6	61,000
	95	55.0	129.1	56,300
	100	52.6	125.3	52,000
	105	50.1	121.2	48,200
	110	47.5	116.6	44,800
	115	44.8	111.6	41,800
	120	42.0	106.1	39,000
	125	38.9	100.0	36,400
	130	35.7	93.2	34,100
	135	32.2	85.4	31,900
	140	28.3	76.5	29,900

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
160	29	83.0	166.4	292,100
	30	82.6	166.3	290,300
	32	81.9	166.0	284,700
	34	81.1	165.7	257,800
	36	80.4	165.3	235,300
	38	79.7	164.9	216,200
	40	79.0	164.5	199,700
	42	78.2	164.0	185,400
	44	77.5	163.6	172,900
	46	76.8	163.1	161,800
	48	76.0	162.6	151,900
	50	75.3	162.0	143,000
	55	73.4	160.5	124,400
	60	71.5	158.8	109,600
	65	69.6	157.0	97,600
	70	67.7	154.9	87,600
	75	65.7	152.6	79,200
	80	63.7	150.2	72,000
	85	61.7	147.5	65,800
	90	59.6	144.5	60,400
170	95	57.5	141.3	55,600
	100	55.3	137.9	51,300
	105	53.1	134.1	47,600
	110	50.7	130.1	44,200
	115	48.4	125.6	41,100
	120	45.9	120.8	38,300
	125	43.3	115.6	35,700
	130	40.5	109.8	33,400
	135	37.6	103.4	31,200
	140	34.5	96.2	29,300
	145	31.1	88.2	27,400
	150	27.3	78.8	25,700
	30	83.0	176.4	284,100
	32	82.4	176.1	281,100
	34	81.7	175.8	257,700
	36	81.0	175.5	235,200
	38	80.3	175.1	216,100
	40	79.6	174.7	199,600
	42	78.9	174.3	185,300
	44	78.2	173.8	172,800
	46	77.5	173.4	161,700
	48	76.9	172.9	151,800
	50	76.2	172.4	142,900
	55	74.4	171.0	124,300
	60	72.6	169.4	109,500
	65	70.9	167.6	97,500
	70	69.1	165.7	87,500
	75	67.2	163.6	79,100
	80	65.4	161.3	71,900
	85	63.5	158.8	65,700
	90	61.6	156.1	60,200
	95	59.6	153.2	55,500
	100	57.6	150.0	51,200
	105	55.6	146.6	47,400
	110	53.5	142.9	44,000
	115	51.3	138.9	40,900
	120	49.1	134.6	38,100
	125	46.8	129.9	35,600
	130	44.4	124.9	33,300
	135	41.9	119.3	31,100
	140	39.2	113.3	29,100
	145	36.4	106.6	27,300
	150	33.4	99.2	25,600
	155	30.1	90.8	24,000
	160	26.5	81.1	22,500

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
180	32	82.8	186.2	274,600
	34	82.1	185.9	257,300
	36	81.5	185.6	234,800
	38	80.9	185.3	215,600
	40	80.2	184.9	199,100
	42	79.6	184.5	184,800
	44	78.9	184.1	172,200
	46	78.3	183.6	161,100
	48	77.6	183.2	151,200
	50	76.9	182.7	142,300
	55	75.3	181.4	123,700
	60	73.6	179.9	108,900
	65	72.0	178.3	96,900
	70	70.3	176.5	86,900
	75	68.6	174.5	78,400
	80	66.8	172.3	71,200
	85	65.1	170.0	65,000
	90	63.3	167.5	59,600
	95	61.5	164.8	54,800
	100	59.6	161.8	50,600
190	105	57.8	158.7	46,800
	110	55.8	155.3	43,400
	115	53.9	151.7	40,300
	120	51.8	147.7	37,500
	125	49.8	143.5	34,900
	130	47.6	139.0	32,600
	135	45.4	134.1	30,400
	140	43.1	128.8	28,400
	145	40.6	123.0	26,600
	150	38.1	116.7	24,900
	155	35.4	109.8	23,300
	160	32.4	102.1	21,800
	165	29.2	93.4	20,400
	170	25.7	83.3	19,100
	34	82.6	196.0	241,300
	36	81.9	195.7	234,300
	38	81.3	195.4	215,200
	40	80.7	195.1	198,700
	42	80.1	194.7	184,300
	44	79.5	194.3	171,800
	46	78.9	193.9	160,600
	48	78.3	193.4	150,700
	50	77.6	193.0	141,800
	55	76.1	191.7	123,200
	60	74.5	190.3	108,400
	65	72.9	188.8	96,300
	70	71.4	187.1	86,300
	75	69.7	185.3	77,900
	80	68.1	183.2	70,700
	85	66.5	181.1	64,500
	90	64.8	178.7	59,000
	95	63.1	176.2	54,200
	100	61.4	173.4	50,000
	105	59.7	170.5	46,200
	110	57.9	167.4	42,800
	115	56.1	164.0	39,700
	120	54.2	160.4	36,900
	125	52.3	156.6	34,300
	130	50.3	152.4	32,000
	135	48.3	148.0	29,900
	140	46.2	143.2	27,900
	145	44.1	138.1	26,000
	150	41.8	132.6	24,300
	155	39.5	126.6	22,700
	160	37.0	120.0	21,300
	165	34.4	112.8	19,900
	170	31.5	104.8	18,600
	175	28.4	95.8	17,400

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REQUIREMENTS

M-250

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
200	34	82.9	206.1	233,400*
	36	82.4	205.8	231,200*
	38	81.8	205.5	214,700
	40	81.2	205.2	198,200
	42	80.6	204.8	183,800
	44	80.0	204.5	171,200
	46	79.4	204.1	160,100
	48	78.9	203.7	150,200
	50	78.3	203.2	141,300
	55	76.8	202.1	122,600
	60	75.3	200.7	107,800
	65	73.8	199.3	95,700
	70	72.3	197.7	85,700
	75	70.8	195.9	77,200
	80	69.3	194.0	70,000
	85	67.7	192.0	63,800
	90	66.2	189.8	58,400
	95	64.6	187.4	53,600
	100	63.0	184.8	49,300
	105	61.3	182.1	45,500
210	110	59.7	179.2	42,100
	115	58.0	176.0	39,000
	120	56.3	172.7	36,200
	125	54.5	169.1	33,700
	130	52.7	165.3	31,300
	135	50.9	161.3	29,200
	140	49.0	157.0	27,200
	145	47.0	152.3	25,300
	150	45.0	147.3	23,600
	155	42.9	142.0	22,000
	160	40.7	136.2	20,600
	165	38.4	130.0	19,200
	170	36.0	123.2	17,900
	175	33.4	115.8	16,700
	180	30.7	107.5	15,500
	185	27.7	98.3	14,400
	36	82.7	215.9	225,300*
	38	82.2	215.6	214,400
	40	81.6	215.3	197,900
	42	81.1	215.0	183,600
	44	80.5	214.6	171,000
	46	80.0	214.3	159,800
	48	79.4	213.9	149,900
	50	78.8	213.5	141,000
	55	77.4	212.3	122,300
	60	76.0	211.1	107,500
	65	74.6	209.7	95,400
	70	73.2	208.2	85,400
	75	71.8	206.5	77,000
	80	70.3	204.7	69,800
	85	68.8	202.8	63,500
	90	67.4	200.7	58,100
	95	65.9	198.5	53,300
	100	64.4	196.1	49,100
	105	62.8	193.5	45,300
	110	61.3	190.8	41,800
	115	59.7	187.8	38,800
	120	58.1	184.7	36,000
	125	56.4	181.4	33,400
	130	54.8	177.9	31,100
	135	53.1	174.1	28,900
	140	51.3	170.1	26,900
	145	49.5	165.9	25,100
	150	47.7	161.4	23,400
	155	45.8	156.5	21,800
	160	43.8	151.3	20,300
	165	41.8	145.8	18,900
	170	39.7	139.8	17,600
	175	37.4	133.4	16,400
	180	35.1	126.4	15,300
	185	32.6	118.7	14,200
	190	29.9	110.2	13,100
	195	27.0	100.6	12,200

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
220	38	82.5	225.8	214,000
	40	82.0	225.5	197,400
	42	81.5	225.1	183,100
	44	80.9	224.8	170,500
	46	80.4	224.4	159,300
	48	79.9	224.1	149,400
	50	79.4	223.7	140,500
	55	78.0	222.6	121,800
	60	76.7	221.4	106,900
	65	75.3	220.1	94,800
	70	74.0	218.7	84,800
	75	72.6	217.1	76,400
	80	71.2	215.4	69,100
	85	69.9	213.5	62,900
	90	68.5	211.6	57,400
	95	67.0	209.4	52,600
	100	65.6	207.2	48,400
	105	64.2	204.7	44,600
	110	62.7	202.2	41,200
	115	61.2	199.4	38,100
230	120	59.7	196.5	35,300
	125	58.2	193.4	32,700
	130	56.6	190.1	30,400
	135	55.0	186.6	28,200
	140	53.4	182.9	26,200
	145	51.7	179.0	24,400
	150	50.1	174.8	22,700
	155	48.3	170.4	21,100
	160	46.5	165.6	19,600
	165	44.7	160.6	18,200
	170	42.8	155.2	16,900
	175	40.8	149.5	15,700
	180	38.7	143.3	14,600
	185	36.5	136.6	13,500
	190	34.2	129.4	12,500
	195	31.8	121.5	11,500
	200	29.2	112.7	10,600
	205	26.3	102.9	9,700
	38	82.9	235.9	193,200*
	40	82.4	235.6	191,600*
	42	81.8	235.3	182,600
	44	81.3	234.9	170,000
	46	80.8	234.6	158,800
	48	80.3	234.2	148,900
	50	79.8	233.9	140,000
	55	78.6	232.9	121,200
	60	77.3	231.7	106,400
	65	76.0	230.5	94,300
	70	74.7	229.1	84,200
	75	73.4	227.6	75,800
	80	72.1	226.0	68,600
	85	70.8	224.2	62,300
	90	69.4	222.3	56,900
	95	68.1	220.3	52,100
	100	66.7	218.2	47,800
	105	65.4	215.9	44,000
	110	64.0	213.4	40,600
	115	62.6	210.8	37,500
	120	61.2	208.1	34,700
	125	59.7	205.1	32,100
	130	58.3	202.1	29,800
	135	56.8	198.8	27,600
	140	55.2	195.3	25,600
	145	53.7	191.7	23,800
	150	52.1	187.8	22,100
	155	50.5	183.7	20,500
	160	48.9	179.3	19,000
	165	47.2	174.7	17,600
	170	45.4	169.8	16,300
	175	43.6	164.6	15,100

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
230	180	41.8	159.0	14,000
	185	39.8	153.1	12,900
	190	37.8	146.7	11,900
	195	35.7	139.8	10,900
	200	33.5	132.4	10,000
	205	31.1	124.2	9,100
	210	28.5	115.2	8,300
	215	25.7	105.1	7,500
	40	82.7	245.7	185,800*
	42	82.2	245.4	182,100
240	44	81.7	245.1	169,400
	46	81.2	244.7	158,300
	48	80.7	244.4	148,300
	50	80.3	244.0	139,400
	55	79.0	243.1	120,700
	60	77.8	242.0	105,800
	65	76.6	240.8	93,700
	70	75.4	239.5	83,600
	75	74.1	238.0	75,100
	80	72.9	236.5	67,900
	85	71.6	234.8	61,700
	90	70.3	233.0	56,200
	95	69.1	231.1	51,400
	100	67.8	229.1	47,100
	105	66.5	226.9	43,300
	110	65.2	224.6	39,900
	115	63.8	222.1	36,800
	120	62.5	219.5	34,000
	125	61.1	216.7	31,400
	130	59.7	213.8	29,100
	135	58.3	210.7	26,900
	140	56.9	207.5	24,900
	145	55.5	204.0	23,100
	150	54.0	200.4	21,400
	155	52.5	196.6	19,800
	160	50.9	192.5	18,300
	165	49.4	188.2	16,900
	170	47.8	183.7	15,600
	175	46.1	178.9	14,400
	180	44.4	173.9	13,300
	185	42.6	168.5	12,200
	190	40.8	162.7	11,100
	195	38.9	156.6	10,200
	200	37.0	150.0	9,300
	205	34.9	142.9	8,400
	210	32.7	135.3	7,600
	215	30.4	126.9	6,800
	220	27.9	117.7	6,000
	225	25.1	107.3	5,300

MANITOWOC ENGINEERING CO.

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



LIFT CRANE CAPACITIES

BOOM NO. 44 WITH HEAVY LIFT TOP
167,000 LB. COUNTERWEIGHT
360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-250

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
250	40	83.0	255.8	179,100
	42	82.5	255.5	177,900
	44	82.0	255.2	170,200
	46	81.6	254.9	159,000
	48	81.1	254.6	149,100
	50	80.6	254.2	140,200
	55	79.5	253.3	121,400
	60	78.3	252.2	106,600
	65	77.1	251.1	94,500
	70	76.0	249.8	84,400
	75	74.8	248.5	76,000
	80	73.6	247.0	68,700
	85	72.4	245.4	62,500
	90	71.2	243.7	57,000
	95	69.9	241.8	52,200
	100	68.7	239.9	48,000
	105	67.5	237.8	44,200
	110	66.2	235.6	40,700
	115	64.9	233.3	37,600
	120	63.7	230.8	34,800
	125	62.4	228.2	32,300
	130	61.1	225.4	29,900
	135	59.7	222.5	27,800
	140	58.4	219.4	25,800
	145	57.0	216.2	23,900
260	150	55.6	212.7	22,200
	155	54.2	209.1	20,600
	160	52.8	205.4	19,200
	165	51.3	201.4	17,800
	170	49.8	197.2	16,500
	175	48.3	192.7	15,300
	180	46.7	188.0	14,100
	185	45.1	183.1	13,000
	190	43.4	177.8	12,000
	195	41.7	172.2	11,000
	200	40.0	166.3	10,100
	205	38.1	160.0	9,300
	210	36.2	153.2	8,400
	215	34.2	146.0	7,600
	220	32.0	138.1	6,900
	225	29.7	129.5	6,200
	230	27.3	120.1	5,500
	42	82.8	265.6	169,400
	44	82.4	265.3	166,100
	46	81.9	265.0	158,500
	48	81.5	264.7	148,600
	50	81.0	264.4	139,600
	55	79.9	263.5	120,900
	60	78.8	262.5	106,000
	65	77.6	261.4	93,900
	70	76.5	260.1	83,800
	75	75.4	258.8	75,300
	80	74.2	257.4	68,100
	85	73.1	255.9	61,800
	90	71.9	254.2	56,400
	95	70.7	252.5	51,600
	100	69.6	250.6	47,300
	105	68.4	248.6	43,500
	110	67.2	246.5	40,100
	115	66.0	244.3	37,000
	120	64.8	241.9	34,200
	125	63.5	239.4	31,600
	130	62.3	236.8	29,300
	135	61.0	234.0	27,100
	140	59.8	231.1	25,100
	145	58.5	228.1	23,300
	150	57.1	224.8	21,600
	155	55.8	221.4	20,000
	160	54.5	217.9	18,500
	165	53.1	214.1	17,100
	170	51.7	210.2	15,800
	175	50.2	206.0	14,600
	180	48.8	201.7	13,400
	185	47.3	197.1	12,300

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
260	190	45.8	192.2	11,300
	195	44.2	187.1	10,300
	200	42.6	181.7	9,400
	205	40.9	176.0	8,600
	210	39.1	169.9	7,700
	215	37.3	163.4	6,900
	220	35.4	156.4	6,200
	225	33.5	149.0	5,500
	230	31.4	140.9	4,800
	235	29.1	132.1	4,100
	44	82.6	275.4	153,900
	46	82.2	275.1	151,800
270	48	81.8	274.8	148,000
	50	81.3	274.5	139,100
	55	80.3	273.6	120,300
	60	79.2	272.7	105,400
	65	78.1	271.6	93,300
	70	77.0	270.4	83,200
	75	75.9	269.2	74,800
	80	74.8	267.8	67,500
	85	73.7	266.4	61,300
	90	72.6	264.8	55,800
	95	71.5	263.1	51,000
	100	70.4	261.3	46,700
280	105	69.2	259.4	42,900
	110	68.1	257.4	39,500
	115	66.9	255.3	36,400
	120	65.8	253.0	33,600
	125	64.6	250.6	31,000
	130	63.4	248.1	28,600
	135	62.2	245.5	26,500
	140	61.0	242.7	24,500
	145	59.8	239.8	22,700
	150	58.5	236.7	20,900
	155	57.3	233.5	19,300
	160	56.0	230.1	17,900
280	165	54.7	226.6	16,500
	170	53.4	222.9	15,200
	175	52.0	219.0	14,000
	180	50.6	214.9	12,800
	185	49.2	210.6	11,700
	190	47.8	206.1	10,700
	195	46.3	201.3	9,700
	200	44.8	196.3	8,800
	205	43.3	191.1	7,900
	210	41.7	185.5	7,100
	215	40.1	179.6	6,300
	220	38.4	173.3	5,600
280	225	36.6	166.6	4,900
	230	34.8	159.5	4,200
	44	82.9	285.5	142,700
	46	82.5	285.2	142,000
	48	82.1	284.9	141,300
	50	81.7	284.6	138,600
	55	80.6	283.8	120,300
	60	79.6	282.9	105,300
	65	78.5	281.8	93,200
	70	77.5	280.7	83,100
	75	76.4	279.5	74,600
	80	75.4	278.2	67,400
280	85	74.3	276.8	61,100
	90	73.2	275.3	55,600
	95	72.2	273.7	50,800
	100	71.1	271.9	46,500
	105	70.0	270.1	42,700
	110	68.9	268.2	39,300
	115	67.8	266.1	36,200
	120	66.7	264.0	33,400
	125	65.6	261.7	30,800
	130	64.4	259.3	28,500
	135	63.3	256.8	26,300
	140	62.1	254.1	24,300
	145	61.0	251.4	22,400

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
280	150	59.8	248.5	20,700
	155	58.6	245.4	19,100
	160	57.4	242.2	17,700
	165	56.1	238.8	16,300
	170	54.9	235.3	15,000
	175	53.6	231.6	13,700
	180	52.3	227.8	12,600
	185	51.0	223.7	11,500
	190	49.7	219.5	10,500
	195	48.3	215.1	9,500
	200	46.9	210.4	8,600
	205	45.5	205.5	7,700
290	210	44.0	200.3	6,900
	215	42.5	194.9	6,100
	220	40.9	189.2	5,400
	225	39.3	183.1	4,600
	230	37.6	176.7	4,000
	46	82.7	295.3	132,000
	48	82.3	295.0	131,400
	50	81.9	294.7	130,800
	55	80.9	293.9	119,900
	60	79.9	293.0	109,900
	65	78.9	292.1	92,800
	70	77.9	291.0	82,700
290	75	76.9	289.8	74,200
	80	75.9	288.6	67,000
	85	74.9	287.2	60,700
	90	73.8	285.7	55,200
	95	72.8	284.2	50,400
	100	71.8	282.5	46,100
	105	70.7	280.8	42,300
	110	69.7	278.9	38,900
	115	68.6	277.0	35,800
	120	67.5	274.9	33,000
	125	66.5	272.7	30,400
	130	65.4	270.4	28,000
290	135	64.3	268.0	25,900
	140	63.2	265.5	23,900
	145	62.0	262.8	22,000
	150	60.9	260.0	20,300
	155	59.8	257.1	18,700
	160	58.6	254.1	17,200
	165	57.4	250.9	15,900
	170	56.3	247.5	14,600
	175	55.1	244.0	13,300
	180	53.8	240.4	12,200
	185	52.6	236.6	11,100
	190	51.3	232.6	10,100
290	195	50.0	228.4	9,100
	200	48.7	224.0	8,200
	205	47.4	219.4	7,300
	210	46.0	214.6	6,500
	215	44.6	209.6	5,700
	220	43.2	204.3	4,900
	225	41.7	198.7	4,200

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360 DEGREE RATING

MEETS
ANSI B30.5
REQUIREMENTS

M-250

BOOM LGTH. FEET	OPER. RAD. FEET	BOOM ANG. DEG.	BOOM POINT ELEV. FEET	CAPACITY POUNDS
300	46	83.0	305.4	123,300
	48	82.6	305.1	122,900
	50	82.2	304.8	122,600
	55	81.3	304.1	119,300
	60	80.3	303.2	104,300
	65	79.3	302.3	92,200
	70	78.3	301.2	82,100
	75	77.4	300.1	73,600
	80	76.4	298.9	66,300
	85	75.4	297.6	60,000
	90	74.4	296.2	54,600
	95	73.4	294.7	49,700
	100	72.4	293.1	45,500
	105	71.4	291.4	41,600
	110	70.4	289.6	38,200
	115	69.4	287.7	35,100
	120	68.3	285.7	32,300
	125	67.3	283.6	29,700
	130	66.2	281.4	27,300
	135	65.2	279.1	25,200
	140	64.1	276.7	23,200
	145	63.1	274.1	21,300
	150	62.0	271.5	19,600
	155	60.9	268.7	18,000
	160	59.8	265.8	16,500
	165	58.7	262.7	15,100
	170	57.5	259.6	13,800
	175	56.4	256.2	12,600
	180	55.2	252.8	11,500
	185	54.0	249.1	10,400
	190	52.8	245.4	9,300
	195	51.6	241.4	8,400
	200	50.4	237.3	7,500
	205	49.1	233.0	6,600
	210	47.8	228.4	5,800
	215	46.5	223.7	5,000
	220	45.2	218.8	4,200