

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

4600 SERIES 4
RINGER SERIES 3

BOOM NO. 65
60' RINGER ATTACHMENT ON
BLOCKING OR PEDESTALS
123,000 LB. CRANE COUNTERWEIGHT
174,100 LB. 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 CAPACITIES FOR LIFTCRANE SERVICE WITH SINGLE PART WHIP LINE ARE 44,000 LBS. FOR 1-1/4" WIRE ROPE, 45,000 LBS. FOR 1-3/8" WIRE ROPE AND 50,000 LBS. FOR 1-1/2" OR 1-5/8" WIRE ROPE. CAPACITIES FOR TWO PART LINE ARE 88,000 LBS. FOR 1-1/4" WIRE ROPE, 90,000 LBS. FOR 1-3/8" WIRE ROPE AND 100,000 LBS. FOR 1-1/2" OR 1-5/8" WIRE ROPE. 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 ON A FIRM UNIFORMLY SUPPORTING SURFACE WITH ROLLER PATH LEVEL WITHIN A TOLERANCE OF 1-1/4" IN 60' AND PROPERLY SUPPORTED. REFER TO RIGGING NO. 66184 AND WIRE ROPE SPECIFICATION CHART NO. 7307-A OR NO. 7357-A. 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.

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 60' RINGER ATTACHMENT, 30" CRAWLERS, 60" TREADS, 33' RETRACTABLE GANTRY, 130' MAST, 18 PART BOOM HOIST REEVING, EIGHT 1-3/8" BOOM PENDANTS, 123,000 LB. CRANE COUNTERWEIGHT (120,000 LBS. WITH COUNTERWEIGHT ASSEMBLY NO. 49667) AND 174,100 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED		DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED	
BOOM LGTH.	JIB NO. 27AB	JIB LGTH.	JIB NO. 27AB
360'	---	80'	48,000 LBS.
260'	120'	100'	57,800 LBS.
LOAD BLOCK, HOOK AND WEIGHT BALL ON GROUND AT START.		120'	67,000 LBS.

WARNING: CHECK AMOUNT OF AUXILIARY COUNTERWEIGHT ON MACHINE BEFORE USE OF THIS CHART.

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
140	55	80.1	145.5	1,058,300	180	60	80.7	185.2	874,500	200	60	81.7	205.5	871,700
	60	78.0	144.5	881,900		65	79.1	184.3	746,500		65	80.2	204.7	743,800
	65	75.9	143.2	754,000		70	77.5	183.2	649,600		70	78.7	203.7	646,800
	70	73.8	141.8	657,100		75	75.8	182.0	573,500		75	77.3	202.6	570,700
	75	71.6	140.2	581,100		80	74.2	180.6	512,300		80	75.8	201.3	509,500
	80	69.5	138.3	519,900		85	72.5	179.0	461,900		85	74.3	199.9	459,100
	85	67.2	136.2	469,500		90	70.8	177.3	419,800		90	72.8	198.4	417,000
	90	65.0	133.9	427,400		95	69.1	175.4	384,000		95	71.3	196.7	381,200
	95	62.7	131.4	391,600		100	67.4	173.3	353,200		100	69.8	194.9	350,400
	100	60.3	128.6	360,800		105	65.7	171.1	326,400		105	68.2	192.9	323,600
	105	57.9	125.5	334,100		110	63.9	168.7	303,000		110	66.7	190.8	300,100
	110	55.5	122.1	310,600		115	62.1	166.1	282,200		115	65.1	188.5	279,400
	115	52.9	118.4	289,800		120	60.3	163.2	263,700		120	63.5	186.0	260,900
	120	50.3	114.3	271,400		125	58.4	160.2	247,200		125	61.9	183.4	244,400
	125	47.5	109.8	254,800		130	56.5	156.9	232,200		130	60.2	180.6	229,400
	130	44.7	104.9	239,900		135	54.6	153.4	218,700		135	58.6	177.5	215,900
	135	41.6	99.4	226,300		140	52.6	149.6	206,400		140	56.9	174.3	203,600
	140	38.4	93.3	214,000		145	50.5	145.6	195,200		145	55.1	170.9	192,300
	145	34.9	86.3	202,800		150	48.4	141.2	184,800		150	53.3	167.2	182,000
	150	31.0	78.4	192,400		155	46.2	136.5	175,300		155	51.5	163.2	172,500
160	155	26.7	69.0	182,900	160	160	43.9	131.4	166,500	160	160	49.7	159.1	163,700
	160	21.5	57.3	174,100		165	41.6	125.8	158,400		165	47.7	154.6	155,600
						170	39.1	119.8	150,800		170	45.7	149.8	148,000
						175	36.4	113.2	143,700		175	43.7	144.6	140,900
						180	33.6	105.9	137,100		180	41.6	139.1	134,300
						185	30.6	97.7	131,000		185	39.3	133.1	128,200
						190	27.2	88.4	125,200		190	37.0	126.6	122,400
						195	23.4	77.5	119,700		195	34.5	119.5	116,900
						200	18.8	64.2	114,600		200	31.8	111.7	111,800
											205	28.9	102.9	107,000
											210	25.8	93.0	102,400
											215	22.1	81.5	98,100
											220	17.8	67.3	93,900

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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
220	65	81.1	225.0	741,300	240	225	35.7	146.4	85,000	280	180	57.8	243.7	123,900
	70	79.8	224.1	644,300		230	33.6	139.1	81,300		185	56.6	240.4	117,700
	75	78.5	223.1	568,200		235	31.4	131.1	77,800		190	55.3	237.0	111,900
	80	77.1	221.9	507,000		240	28.9	122.3	74,500		195	54.1	233.4	106,500
	85	75.8	220.7	456,600		245	26.3	112.5	71,300		200	52.8	229.6	101,400
	90	74.4	219.3	414,400		250	23.4	101.5	68,200		205	51.5	225.7	96,500
	95	73.1	217.8	378,600		255	20.1	88.7	65,300		210	50.1	221.6	92,000
	100	71.7	216.2	347,800		260	16.2	73.1	62,500		215	48.8	217.2	87,700
	105	70.3	214.4	321,100		70	81.4	264.7	639,200		220	47.4	212.7	83,600
	110	68.9	212.5	297,600		75	80.3	263.8	563,100		225	46.0	207.9	79,700
	115	67.5	210.4	276,800		80	79.1	262.9	501,900		230	44.5	202.9	76,000
	120	66.1	208.2	258,300		85	78.0	261.8	451,500		235	43.0	197.6	72,500
	125	64.6	205.9	241,800		90	76.9	260.7	409,300		240	41.5	192.0	69,100
	130	63.2	203.4	226,900		95	75.7	259.4	373,500		245	39.9	186.1	65,900
	135	61.7	200.7	213,300		100	74.6	258.0	342,700		250	38.3	179.9	62,900
	140	60.2	197.9	201,000		105	73.4	256.6	315,900		255	36.6	173.2	59,900
	145	58.7	194.9	189,800		110	72.3	255.0	292,400		260	34.8	166.2	57,200
	150	57.2	191.7	179,400		115	71.1	253.3	271,700		265	33.0	158.6	54,500
	155	55.6	188.3	169,900		120	70.0	251.5	253,200		270	31.0	150.5	51,900
	160	54.0	184.7	161,100		125	68.8	249.6	236,600	300	75	81.6	304.4	557,500
	165	52.3	180.9	153,000	260	130	67.6	247.5	221,700		80	80.6	303.6	496,200
	170	50.7	176.8	145,400		135	66.4	245.3	208,200		85	79.6	302.6	445,800
	175	48.9	172.5	138,400		140	65.2	243.0	195,800		90	78.7	301.7	403,600
	180	47.2	167.9	131,800		145	63.9	240.6	184,600		95	77.7	300.6	367,700
	185	45.4	163.1	125,600		150	62.7	238.1	174,300		100	76.7	299.4	336,900
	190	43.5	157.9	119,800		155	61.5	235.4	164,700		105	75.7	298.1	310,200
	195	41.5	152.3	114,400		160	60.2	232.5	156,000		110	74.7	296.8	286,700
	200	39.5	146.3	109,300		165	58.9	229.5	147,800		115	73.7	295.3	265,900
	205	37.4	139.9	104,400		170	57.6	226.4	140,200		120	72.7	293.8	247,400
	210	35.2	133.0	99,900		175	56.3	223.1	133,200		125	71.7	292.1	230,900
	215	32.8	125.4	95,500		180	54.9	219.6	126,600		130	70.7	290.4	215,900
	220	30.3	117.1	91,400		185	53.6	215.9	120,400		135	69.7	288.6	202,400
	225	27.5	107.9	87,500		190	52.2	212.1	114,700		140	68.7	286.6	190,100
	230	24.5	97.4	83,800		195	50.8	208.0	109,200		145	67.6	284.6	178,800
	235	21.1	85.2	80,300		200	49.3	203.8	104,100		150	66.6	282.4	168,500
	240	17.0	70.2	76,900		205	47.8	199.3	99,300		155	65.5	280.2	159,000
240	65	81.9	245.2	738,800	280	210	46.3	194.6	94,700		160	64.5	277.8	150,200
	70	80.6	244.4	641,800		215	44.8	189.6	90,400		165	63.4	275.3	142,000
	75	79.4	243.5	565,700		220	43.2	184.3	86,300		170	62.3	272.7	134,500
	80	78.2	242.4	504,500		225	41.5	178.8	82,400		175	61.3	270.0	127,400
	85	77.0	241.3	454,100		230	39.8	172.8	78,700		180	60.2	267.2	120,800
	90	75.8	240.0	411,900		235	38.0	166.6	75,200		185	59.1	264.2	114,700
	95	74.5	238.7	376,100		240	36.2	159.8	71,800		190	57.9	261.1	108,900
	100	73.3	237.2	345,300		245	34.3	152.7	68,600		195	56.8	257.8	103,400
	105	72.0	235.6	318,500		250	32.2	144.9	65,600		200	55.6	254.4	98,300
	110	70.8	233.8	295,100		255	30.1	136.5	62,700		205	54.5	250.9	93,500
	115	69.5	232.0	274,300		260	27.8	127.3	59,900		210	53.3	247.2	88,900
	120	68.2	230.0	255,800		265	25.3	117.0	57,200		215	52.1	243.3	84,600
	125	66.9	227.9	239,300		270	22.5	105.5	54,600		220	50.8	239.3	80,500
	130	65.6	225.6	224,300	300	275	19.3	92.1	52,100		225	49.6	235.0	76,600
	135	64.3	223.2	210,800		70	82.0	284.9	636,500		230	48.3	230.6	72,900
	140	62.9	220.7	198,500		75	81.0	284.1	560,400		235	47.0	226.0	69,400
	145	61.6	218.0	187,200		80	79.9	283.2	499,200		240	45.7	221.2	66,100
	150	60.2	215.2	176,900		85	78.9	282.3	448,800		245	44.3	216.1	62,900
	155	58.8	212.2	167,400		90	77.8	281.2	406,600		250	42.9	210.8	59,800
	160	57.4	209.0	158,600		95	76.8	280.0	370,800		255	41.5	205.2	56,900
	165	56.0	205.7	150,500		100	75.7	278.8	340,000		260	40.0	199.3	54,100
	170	54.5	202.1	142,900		105	74.7	277.4	313,200		265	38.5	193.1	51,400
	175	53.0	198.4	135,800		110	73.6	276.0	289,700					
	180	51.5	194.5	129,300		115	72.5	274.4	268,900					
	185	49.9	190.3	123,100		120	71.4	272.7	250,500					
	190	48.3	185.9	117,300		125	70.4	271.0	233,900					
	195	46.7	181.3	111,900		130	69.3	269.1	219,000					
	200	45.0	176.3	106,700		135	68.2	267.1	205,400					
	205	43.3	171.1	101,900		140	67.1	265.0	193,100					
	210	41.5	165.5	97,300		145	65.9	262.8	181,900					
	215	39.7	159.6	93,000		150	64.8	260.4	171,500					
	220	37.7	153.3	88,900		155	63.7	258.0	162,000					
						160	62.5	255.4	153,200					
						165	61.4	252.7	145,100					
						170	60.2	249.8	137,500					
						175	59.0	246.8	130,500					

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320	80	81.2	323.8	493,800	340	80	81.7	344.1	490,800	360	90	80.6	362.7	395,700
	85	80.3	323.0	443,400		85	80.9	343.3	440,300		95	79.8	361.8	359,900
	90	79.4	322.1	401,200		90	80.0	342.4	398,100		100	78.9	360.9	329,000
	95	78.5	321.0	365,400		95	79.1	341.5	362,300		105	78.1	359.8	302,300
	100	77.5	319.9	334,600		100	78.3	340.4	331,500		110	77.3	358.7	278,800
	105	76.6	318.8	307,800		105	77.4	339.3	304,700		115	76.5	357.5	258,000
	110	75.7	317.5	284,300		110	76.6	338.1	281,200		120	75.7	356.2	239,500
	115	74.8	316.1	263,500		115	75.7	336.9	260,400		125	74.9	354.9	222,900
	120	73.8	314.7	245,000		120	74.8	335.5	241,900		130	74.0	353.5	208,000
	125	72.9	313.2	228,500		125	73.9	334.1	225,400		135	73.2	352.0	194,500
	130	72.0	311.6	213,500		130	73.1	332.6	210,400		140	72.4	350.4	182,100
	135	71.0	309.9	200,000		135	72.2	331.0	196,900		145	71.5	348.7	170,900
	140	70.1	308.1	187,700		140	71.3	329.3	184,600		150	70.7	347.0	160,500
	145	69.1	306.2	176,400		145	70.4	327.5	173,300		155	69.8	345.2	151,000
	150	68.1	304.2	166,100		150	69.5	325.7	163,000		160	69.0	343.2	142,200
	155	67.2	302.1	156,600		155	68.6	323.7	153,500		165	68.1	341.2	134,100
	160	66.2	299.9	147,800		160	67.7	321.7	144,700		170	67.3	339.2	126,500
	165	65.2	297.6	139,600		165	66.8	319.5	136,500		175	66.4	337.0	119,500
	170	64.2	295.2	132,100		170	65.8	317.3	129,000		180	65.5	334.7	112,900
	175	63.2	292.7	125,000		175	64.9	315.0	121,900		185	64.6	332.4	106,700
	180	62.2	290.1	118,400		180	64.0	312.6	115,300		190	63.8	329.9	100,900
	185	61.2	287.3	112,300		185	63.0	310.0	109,100		195	62.9	327.4	95,500
	190	60.2	284.5	106,500		190	62.1	307.4	103,400		200	62.0	324.7	90,400
	195	59.1	281.5	101,000		195	61.1	304.6	97,900		205	61.1	322.0	85,500
	200	58.1	278.4	95,900		200	60.1	301.8	92,800		210	60.1	319.1	81,000
	205	57.0	275.2	91,100		205	59.2	298.8	88,000		215	59.2	316.1	76,600
	210	55.9	271.8	86,500		210	58.2	295.7	83,400		220	58.3	313.1	72,500
	215	54.8	268.3	82,200		215	57.2	292.5	79,100		225	57.3	309.9	68,700
	220	53.7	264.7	78,100		220	56.2	289.2	75,000		230	56.4	306.6	65,000
	225	52.6	260.9	74,200		225	55.1	285.7	71,100		235	55.4	303.2	61,400
	230	51.4	256.9	70,500		230	54.1	282.1	67,400		240	54.4	299.6	58,100
	235	50.3	252.8	67,000		235	53.0	278.4	63,900		245	53.4	295.9	54,900
	240	49.1	248.5	63,700		240	52.0	274.5	60,600		250	52.4	292.1	51,900
	245	47.9	244.0	60,500		245	50.9	270.5	57,400					
	250	46.7	239.4	57,400		250	49.8	266.3	54,300					
	255	45.4	234.5	54,500		255	48.7	261.9	51,400					
	260	44.1	229.4	51,700										