

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 WITH TOP
OFFSET 4-1/2 DEGREES
60' RINGER ATTACHMENT ON
BLOCKING OR PEDESTALS
123,000 LB. CRANE COUNTERWEIGHT
442,300 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 ALL LOAD BLOCKS, HOOKS, WEIGHT BALL, SLINGS, HOIST LINES, ETC., BENEATH BOOM 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" 5" 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 442,300 LB. AUXILIARY COUNTERWEIGHT.

MAXIMUM BOOM LENGTH LIFTED UNASSISTED
IS 400'
LOAD BLOCK, HOOK AND WEIGHT BALL ON
GROUND AT START.
JIB IS NOT TO BE USED ON AN OFFSET TOP.

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

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	82.2	225.1	836,700*	220	205	38.5	140.1	170,300	240	175	54.0	198.5	215,200
	70	80.9	224.2	832,000*		210	36.3	133.2	163,900		180	52.5	194.6	206,000
	75	79.5	223.2	818,900		215	33.9	125.6	157,900		185	51.0	190.5	197,400
	80	78.2	222.1	733,200		220	31.4	117.3	152,100		190	49.4	186.1	189,300
	85	76.9	220.8	662,800		225	28.7	108.1	146,700		195	47.7	181.4	181,700
	90	75.5	219.4	603,800		230	25.7	97.7	141,500		200	46.1	176.5	174,500
	95	74.2	217.9	553,700		235	22.2	85.5	136,600		205	44.3	171.3	167,800
	100	72.8	216.3	510,700		240	18.2	70.6	131,900		210	42.5	165.7	161,400
	105	71.4	214.5	473,200	240	65	82.8	245.3	790,000*		215	40.7	159.8	155,400
	110	70.0	212.6	440,400		70	81.6	244.5	785,700*		220	38.8	153.4	149,600
	115	68.6	210.5	411,400		75	80.4	243.6	782,100*		225	36.8	146.6	144,200
	120	67.2	208.3	385,500		80	79.2	242.6	730,800		230	34.6	139.3	139,000
	125	65.7	206.0	362,400		85	78.0	241.4	660,300		235	32.4	131.3	134,100
	130	64.3	203.5	341,500		90	76.8	240.2	601,300		240	30.0	122.5	129,400
	135	62.8	200.8	322,600		95	75.5	238.8	551,200		245	27.4	112.8	125,000
	140	61.3	198.0	305,400		100	74.3	237.3	508,100		250	24.5	101.8	120,700
	145	59.8	195.0	289,600		105	73.0	235.7	470,700		255	21.2	89.0	116,600
	150	58.3	191.8	275,200		110	71.8	234.0	437,900		260	17.3	73.5	112,700
	155	56.7	188.4	261,900		115	70.5	232.1	408,900					
	160	55.1	184.8	249,600		120	69.2	230.1	383,000					
	165	53.4	181.0	238,200		125	67.9	228.0	359,800					
	170	51.8	177.0	227,600		130	66.6	225.8	339,000					
	175	50.1	172.7	217,800		135	65.3	223.4	320,000					
	180	48.3	168.1	208,500		140	63.9	220.8	302,800					
	185	46.5	163.2	199,900		145	62.6	218.2	287,100					
	190	44.6	158.0	191,800		150	61.2	215.3	272,600					
	195	42.7	152.5	184,200		155	59.8	212.3	259,300					
	200	40.6	146.5	177,100		160	58.4	209.1	247,100					
						165	57.0	205.8	235,700					
						170	55.5	202.3	225,100					

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60' RINGER ATTACHMENT ON
BLOCKING OR PEDESTALS
123,000 LB. CRANE COUNTERWEIGHT
442,300 LB. AUXILIARY COUNTERWEIGHT
360 DEGREE RATING**

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
260	70	82.3	264.8	735,100*	280	185	57.4	240.6	192,000	300	285	32.6	164.5	87,100
	75	81.2	263.9	732,000*		190	56.2	237.1	183,900		290	30.8	156.0	84,000
	80	80.0	263.0	728,100		195	54.9	233.5	176,300		295	28.8	146.9	81,100
	85	78.9	261.9	657,700		200	53.6	229.8	169,200		300	26.6	136.8	78,300
	90	77.8	260.8	598,700		205	52.3	225.8	162,400		305	24.3	125.7	75,500
	95	76.7	259.5	548,600		210	51.0	221.7	156,000		310	21.7	113.3	72,900
	100	75.5	258.1	505,500		215	49.7	217.4	150,000		315	18.8	98.8	70,400
	105	74.4	256.7	468,100		220	48.3	212.8	144,300		320	15.3	81.3	67,900
	110	73.2	255.1	435,300		225	46.9	208.0	138,800					
	115	72.0	253.4	406,200		230	45.4	203.0	133,700					
	120	70.9	251.6	380,400		235	43.9	197.7	128,800		75	82.8	324.7	580,300*
	125	69.7	249.7	357,200		240	42.4	192.1	124,100		80	81.9	323.9	580,100*
	130	68.5	247.6	336,300		245	40.8	186.2	119,600		85	81.0	323.1	579,800*
	135	67.3	245.4	317,400		250	39.2	180.0	115,400		90	80.1	322.1	579,500*
	140	66.1	243.2	300,200		255	37.5	173.4	111,300		95	79.2	321.1	540,500
	145	64.9	240.7	284,400		260	35.7	166.3	107,400		100	78.3	320.0	497,400
	150	63.6	238.2	270,000		265	33.9	158.8	103,600		105	77.4	318.9	460,000
	155	62.4	235.5	256,700		270	31.9	150.7	100,000		110	76.4	317.6	427,100
	160	61.1	232.6	244,400		275	29.8	141.9	96,600		115	75.5	316.2	398,100
	165	59.8	229.6	233,000		280	27.6	132.2	93,300		120	74.6	314.8	372,200
280	170	58.5	226.5	222,400	300	285	25.2	121.6	90,100	320	125	73.7	313.3	349,100
	175	57.2	223.2	212,600		290	22.5	109.6	87,100		130	72.7	311.7	328,200
	180	55.9	219.7	203,400		295	19.5	95.7	84,100		135	71.8	310.0	309,200
	185	54.5	216.1	194,800		300	15.9	78.8	81,300		140	70.8	308.2	292,000
	190	53.1	212.2	186,700							145	69.9	306.3	276,300
	195	51.7	208.2	179,100		75	82.4	304.5	629,000*		150	68.9	304.3	261,800
	200	50.3	203.9	171,900		80	81.4	303.7	627,900*		155	67.9	302.2	248,500
	205	48.8	199.4	165,200		85	80.4	302.7	627,000*		160	66.9	300.0	236,200
	210	47.3	194.7	158,800		90	79.4	301.8	593,000		165	66.0	297.7	224,800
	215	45.7	189.7	152,700		95	78.5	300.7	542,900		170	65.0	295.3	214,300
	220	44.1	184.5	147,000		100	77.5	299.5	499,800		175	64.0	292.8	204,400
	225	42.5	178.9	141,600		105	76.5	298.2	462,300		180	63.0	290.2	195,200
	230	40.8	173.0	136,400		110	75.5	296.9	429,500		185	61.9	287.4	186,600
	235	39.0	166.7	131,500		115	74.5	295.4	400,500		190	60.9	284.6	178,500
	240	37.1	160.0	126,800		120	73.5	293.9	374,600		195	59.9	281.6	170,900
	245	35.2	152.8	122,300		125	72.5	292.2	351,400		200	58.8	278.5	163,700
	250	33.2	145.1	118,100		130	71.5	290.5	330,600		205	57.7	275.3	157,000
	255	31.0	136.7	114,000		135	70.5	288.7	311,600		210	56.7	271.9	150,600
	260	28.7	127.5	110,100		140	69.5	286.7	294,400		215	55.6	268.4	144,600
	265	26.2	117.3	106,300		145	68.4	284.7	278,700		220	54.5	264.8	138,800
300	270	23.5	105.8	102,800	320	150	67.4	282.5	264,200	340	225	53.3	261.0	133,400
	275	20.3	92.4	99,300		155	66.3	280.3	250,900		230	52.2	257.0	128,200
	280	16.6	76.2	96,000		160	65.3	277.9	238,600		235	51.0	252.9	123,300
						165	64.2	275.4	227,200		240	49.9	248.6	118,600
						170	63.2	272.8	216,700		245	48.7	244.1	114,200
						175	62.1	270.1	206,800		250	47.4	239.5	109,900
						180	61.0	267.3	197,600		255	46.2	234.6	105,800
						185	59.9	264.3	189,000		260	44.9	229.5	101,900
						190	58.7	261.2	180,900		265	43.6	224.2	98,200
						195	57.6	257.9	173,300		270	42.3	218.6	94,600
						200	56.4	254.5	166,100		275	40.9	212.7	91,200
						205	55.3	251.0	159,400		280	39.5	206.6	87,900
						210	54.1	247.3	153,000		285	38.0	200.1	84,700
						215	52.9	243.4	146,900		290	36.5	193.2	81,700
						220	51.6	239.4	141,200		295	34.9	186.0	78,700
						225	50.4	235.2	135,800		300	33.3	178.3	75,900
						230	49.1	230.8	130,600		305	31.5	170.0	73,200
						235	47.8	226.1	125,700		310	29.7	161.2	70,500
						240	46.5	221.3	121,000		315	27.8	151.7	68,000
						245	45.1	216.3	116,600		320	25.7	141.3	65,500
320	145	66.8	262.9	281,700	340	250	43.7	210.9	112,300	360	325	23.5	129.8	63,200
	150	65.7	260.5	267,300		255	42.3	205.4	108,200		330	21.0	116.8	60,900
	155	64.5	258.1	254,000		260	40.8	199.5	104,300		335	18.2	101.9	58,600
	160	63.4	255.5	241,700		265	39.3	193.3	100,600					
	165	62.2	252.8	230,300		270	37.8	186.7	97,000					
	170	61.0	249.9	219,700		275	36.1	179.8	93,600					
	175	59.8	247.0	209,800		280	34.4	172.4	90,300					
	180	58.6	243.8	200,600										

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340	80	82.4	344.2	523,600*	360	145	72.2	348.8	270,700	380	230	59.0	330.5	119,500
	85	81.6	343.4	523,600*		150	71.3	347.1	256,300		235	58.1	327.3	114,600
	90	80.7	342.5	523,600*		155	70.5	345.2	243,000		240	57.2	324.1	110,000
	95	79.8	341.5	523,600*		160	69.6	343.3	230,700		245	56.3	320.7	105,500
	100	79.0	340.5	494,300		165	68.8	341.3	219,300		250	55.4	317.1	101,200
	105	78.1	339.4	456,900		170	67.9	339.3	208,700		255	54.4	313.5	97,100
	110	77.3	338.2	424,000		175	67.1	337.1	198,800		260	53.5	309.8	93,300
	115	76.4	337.0	395,000		180	66.2	334.8	189,600		265	52.5	305.9	89,500
	120	75.5	335.6	369,100		185	65.3	332.5	181,000		270	51.6	301.8	85,900
	125	74.6	334.2	346,000		190	64.4	330.0	172,900		275	50.6	297.7	82,500
	130	73.8	332.7	325,100		195	63.5	327.5	165,300		280	49.6	293.3	79,200
	135	72.9	331.1	306,100		200	62.6	324.8	158,200		285	48.6	288.9	76,000
	140	72.0	329.4	288,900		205	61.7	322.1	151,400		290	47.6	284.2	73,000
	145	71.1	327.6	273,200		210	60.8	319.2	145,000		295	46.5	279.4	70,100
	150	70.2	325.8	258,700		215	59.9	316.2	139,000		300	45.4	274.4	67,200
	155	69.3	323.8	245,400		220	58.9	313.2	133,300		305	44.4	269.2	64,500
	160	68.4	321.8	233,100		225	58.0	310.0	127,800		310	43.3	263.9	61,900
	165	67.5	319.6	221,700		230	57.0	306.7	122,700		315	42.1	258.3	58,000*
	170	66.5	317.4	211,100		235	56.1	303.3	117,700	400	85	82.8	404.1	326,800*
	175	65.6	315.1	201,300		240	55.1	299.7	113,100		90	82.1	403.3	326,800*
	180	64.7	312.6	192,100		245	54.1	296.0	108,600		95	81.4	402.5	326,800*
	185	63.7	310.1	183,500		250	53.1	292.2	104,300		100	80.7	401.7	326,800*
	190	62.8	307.5	175,400		255	52.1	288.3	100,300		105	79.9	400.7	326,800*
	195	61.8	304.7	167,800		260	51.1	284.1	96,400		110	79.2	399.7	326,800*
	200	60.9	301.9	160,600		265	50.0	279.9	92,600		115	78.5	398.6	326,800*
	205	59.9	298.9	153,800		270	49.0	275.5	89,100		120	77.7	397.5	326,800*
	210	58.9	295.8	147,500		275	47.9	270.9	85,600		125	77.0	396.3	326,800*
	215	57.9	292.6	141,400		280	46.8	266.1	82,300		130	76.3	395.0	317,100
	220	56.9	289.3	135,700		285	45.7	261.2	79,200		135	75.5	393.7	298,100
	225	55.8	285.9	130,300		290	44.5	256.0	76,100		140	74.8	392.3	280,900
	230	54.8	282.3	125,100		295	43.4	250.6	73,200		145	74.0	390.8	265,100
	235	53.8	278.5	120,200		300	42.2	245.0	70,300		150	73.3	389.3	250,700
	240	52.7	274.6	115,500		305	40.9	239.2	67,600		155	72.5	387.6	237,400
	245	51.6	270.6	111,100		310	39.7	233.1	65,000		160	71.8	385.9	225,100
	250	50.5	266.4	106,800		315	38.4	226.7	62,400		165	71.0	384.2	213,700
	255	49.4	262.1	102,700		320	37.1	220.0	60,000		170	70.2	382.3	203,100
	260	48.3	257.5	98,800		325	35.7	213.0	57,600		175	69.5	380.4	193,200
	265	47.1	252.8	95,100	380	85	82.5	383.9	385,700*		180	68.7	378.4	184,000
	270	45.9	247.9	91,500		90	81.7	383.1	385,700*		185	67.9	376.3	175,400
	275	44.7	242.8	88,100		95	80.9	382.2	385,700*		190	67.2	374.2	167,300
	280	43.5	237.4	84,800		100	80.2	381.3	385,700*		195	66.4	371.9	159,700
	285	42.2	231.8	81,600		105	79.4	380.3	385,700*		200	65.6	369.6	152,600
	290	40.9	226.0	78,500		110	78.6	379.3	385,700*		205	64.8	367.2	145,800
	295	39.6	219.8	75,600		115	77.9	378.1	385,700*		210	64.0	364.7	139,400
	300	38.2	213.4	72,800		120	77.1	376.9	383,600		215	63.2	362.1	133,400
	305	36.8	206.6	70,100		125	76.3	375.7	340,400		220	62.4	359.5	127,700
	310	35.3	199.5	67,400		130	75.5	374.3	319,500		225	61.5	356.7	122,200
	315	33.8	191.9	64,900		135	74.7	372.9	300,600		230	60.7	353.8	117,100
	320	32.2	183.9	62,400		140	73.9	371.4	283,400		235	59.9	350.9	112,100
	325	30.5	175.4	60,100		145	73.2	369.9	267,600		240	59.1	347.8	107,500
	330	28.8	166.2	57,800		150	72.4	368.2	253,200		245	58.2	344.7	103,000
	335	26.9	156.3	55,600		155	71.6	366.5	239,900		250	57.4	341.4	98,700
	340	24.9	145.5	51,900*		160	70.8	364.7	227,600		255	56.5	338.1	94,700
360	80	82.8	364.4	443,800*		165	70.0	362.8	216,200		260	55.6	334.6	90,800
	85	82.0	363.6	443,800*		170	69.2	360.9	205,600		265	54.7	331.0	87,000
	90	81.2	362.8	443,800*		175	68.3	358.8	195,700		270	53.8	327.3	83,400
	95	80.4	361.9	443,800*		180	67.5	356.7	186,500		275	52.9	323.4	80,000
	100	79.6	360.9	443,800*		185	66.7	354.5	177,900		280	52.0	319.5	76,700
	105	78.8	359.9	443,800*		190	65.9	352.2	169,800		285	51.1	315.4	73,500
	110	78.0	358.8	421,600		195	65.0	349.8	162,200		290	50.2	311.1	70,500
	115	77.2	357.6	392,600		200	64.2	347.4	155,000		295	49.2	306.8	67,600
	120	76.3	356.3	366,700		205	63.3	344.8	148,300		300	48.2	302.2	62,500*
	125	75.5	355.0	343,500		210	62.5	342.1	141,900		305	47.3	297.6	52,900*
	130	74.7	353.6	322,600		215	61.6	339.4	135,900					
	135	73.9	352.1	303,700		220	60.8	336.5	130,100					
	140	73.0	350.5	286,500		225	59.9	333.6	124,700					