

MANITOWOC ENGINEERING CO.

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



LIFTCRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

BOOM NO. 8 WITH OPEN THROAT TOP 74,000 LB. COUNTERWEIGHT

LIFTING CAPACITIES: 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 shown by shaded areas.

Upper boom point capacity (whip line) for single part line is 22,500 lbs. (20,000 lbs. when rear auxiliary drum is used). In all cases, upper boom point capacities cannot exceed those listed for the main boom capacity.

Capacities are shown in pounds. Weight of jib, (see chart A), all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is to be 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. See boom raising capability chart.

OPERATING CONDITIONS: Machine to operate in a level position on a firm surface with gantry in working position and be rigged in accordance with and under conditions referred to in rigging drawing No. 48029 or No. 48237 and load line specification chart No. 4899.

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.

OPERATING RADIUS: Operating radius is the horizontal distance from the axis of rotation to the center of vertical hoist line or load block with the load freely suspended. Add 11" to boom point radius for radius of sheave when using single part hoist line.

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: Boom point elevation, in feet, is the vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 20'4" crawlers, 38" or 48" treads, 15' retractable gantry, 10 or 12 part boom hoist reeving, two 1-1/2" boom pendants, 1st cwt. = 32,000 lbs., 2nd cwt. = 26,500 lbs., 3rd cwt. = 15,500 lbs.

No. Parts of Line	1	2	3	4	5
Maximum Load - Lbs.	22,500	45,000	67,500	90,000	112,500
No. Parts of Line	6	7	8	9	
Maximum Load - Lbs.	135,000	157,500	180,000	200,000	

LOAD LINE: 1" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. (Approx. Weight Per Ft. in Lbs. 1.85)
WHIP LINE: 1" — 6x25 Filler Wire, Improved Plow Steel, Regular Lay, IWRC. Minimum Breaking Strength 44.9 Ton. Maximum Load — 22,500 lbs. per Line. (Approx. Weight Per Ft. in Lbs. 1.85)

OVER FRONT OF BLOCKED CRAWLERS			OVER SIDE OF CRAWLERS		
Bo. Lgth.	Jib No. 123	Jib No. 124	Bo. Lgth.	Jib No. 123	Jib No. 124
210'	---	---	190'	---	---
200'	---	---	180'	---	30'
190'	30'	60'	170'	30'	60'
180'	50'	60'	160'	60'	60'
170'	60'	60'			

Load block, hook and weight ball on ground at start.

Jib Lgth.	Jib No. 123	Jib No. 124
30'	2,500 lb.	1,800 lb.
40'	3,100 lb.	2,050 lb.
50'	3,700 lb.	2,300 lb.
60'	4,400 lb.	2,500 lb.

For jib capacities, consult jib chart.

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	
60	15	79.1	65.6	200,000	70	40	58.7	66.5	51,100	90	18	80.8	95.5	162,600	
	16	78.1	65.4	200,000		45	53.8	63.1	43,800		19	80.2	95.3	148,500	
	17	77.1	65.1	180,200		50	48.5	59.1	38,100		20	79.5	95.2	136,600	
	18	76.1	64.9	163,400		55	42.8	54.2	33,700		22	78.2	94.8	117,600	
	19	75.2	64.7	149,400		60	36.4	48.2	30,000		24	76.9	94.3	103,100	
	20	74.2	64.4	137,500		65	28.7	40.3	27,100		26	75.6	93.8	91,700	
	22	72.2	63.8	118,600		70	18.5	28.9	24,500		28	74.3	93.3	82,400	
	24	70.1	63.1	104,100		16	81.1	85.7	200,000		30	73.0	92.7	74,700	
	26	68.1	62.3	92,700		17	80.4	85.5	179,700		32	71.6	92.1	68,300	
	28	66.0	61.5	83,400		18	79.6	85.4	162,900		34	70.3	91.4	62,800	
	70	30	63.9	60.5		75,800	19	78.9	85.2		148,800	36	68.9	90.6	58,100
		32	61.8	59.5		69,400	20	78.2	85.0		137,000	38	67.5	89.8	54,000
		34	59.6	58.4		63,900	22	76.7	84.5		118,000	40	66.2	89.0	50,400
		36	57.3	57.2		59,200	24	75.2	84.0		103,500	45	62.6	86.6	43,000
		38	55.0	55.8		55,100	26	73.8	83.5		92,000	50	59.0	83.8	37,400
		40	52.7	54.4		51,500	28	72.3	82.9		82,800	55	55.2	80.6	32,900
		45	46.4	50.1		44,200	30	70.8	82.2		75,100	60	51.2	76.8	29,300
		50	39.4	44.7		38,500	32	69.2	81.5		68,700	65	47.0	72.5	26,300
		55	31.1	37.6		34,100	34	67.7	80.7		63,200	70	42.5	67.4	23,800
60		20.0	27.2	30,500	36	66.1	79.8	58,500	75	37.5	61.5	21,600			
80		15	80.6	75.7	200,000	38	64.6	78.9	54,400	80	31.9	54.3	19,800		
		16	79.8	75.6	200,000	40	63.0	77.9	50,800	85	25.3	45.1	18,200		
		17	79.0	75.4	179,900	45	58.9	75.1	43,500	90	16.3	31.9	16,700		
		18	78.1	75.2	163,100	50	54.6	71.8	37,800						
		19	77.3	74.9	149,100	55	50.0	68.0	33,300						
		20	76.5	74.7	137,200	60	45.2	63.4	29,700						
		22	74.8	74.2	118,200	65	39.9	58.0	26,700						
		24	73.1	73.6	103,700	70	33.9	51.3	24,200						
		26	71.4	73.0	92,300	75	26.9	42.8	22,100						
	28	69.6	72.3	83,000	80	17.3	30.5	20,200							
	30	67.9	71.5	75,400											
	32	66.1	70.6	69,000											
	34	64.3	69.7	63,500											
	36	62.5	68.7	58,800											
	38	60.6	67.6	54,700											

Capacities continued on reverse side.

Form No. 6292-A, 3-30-81/GA

SEE CONDITIONS ON REVERSE SIDE

Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
22	80.4	115.1	117.200		28	80.6	154.7	80,800		32	80.9	184.4	65,700		36	81.1	214.1	54,600	
24	79.3	114.8	102,700		30	79.9	154.3	73,100		34	80.3	184.1	60,200		38	80.6	213.8	50,400	
26	78.3	114.4	91,200		32	79.1	153.9	66,600		36	79.6	183.7	55,500		40	80.0	213.5	46,800	
28	77.2	113.9	82,000		34	78.3	153.5	61,100		38	79.0	183.3	51,300		45	78.6	212.5	39,400	
30	76.1	113.4	74,300		36	77.5	153.1	56,400		40	78.3	182.9	47,700		50	77.2	211.5	33,700	
32	75.1	112.9	67,900		38	76.8	152.7	52,300		45	76.7	181.8	40,300		55	75.8	210.3	29,200	
34	74.0	112.4	62,400		40	76.0	152.2	48,600		50	75.1	180.6	34,600		60	74.4	208.9	25,500	
36	72.9	111.8	57,700		45	74.0	150.8	41,300		55	73.4	179.2	30,100		65	73.0	207.5	22,500	
38	71.8	111.1	53,500		50	72.0	149.3	35,600		60	71.7	177.6	26,500		70	71.6	205.9	19,900	
40	70.7	110.5	49,900		55	70.0	147.6	31,100		65	70.1	175.9	23,500		75	70.1	204.2	17,800	
45	67.9	108.6	42,600		60	67.9	145.7	27,500		70	68.4	174.0	20,900		80	68.7	202.3	15,900	
50	65.1	106.4	36,900		65	65.8	143.5	24,400		75	66.6	171.9	18,800		85	67.2	200.2	14,300	
55	62.2	103.9	32,400		70	63.7	141.2	21,900		80	64.9	169.6	16,900		90	65.7	198.1	12,800	
60	59.2	101.1	28,800		75	61.6	138.6	19,800		85	63.1	167.2	15,300		95	64.2	195.7	11,600	
65	56.1	97.9	25,800		80	59.4	135.8	17,900		90	61.3	164.6	13,800		100	62.7	193.2	10,400	
70	52.9	94.4	23,300		85	57.1	132.7	16,300		95	59.5	161.7	12,600		105	61.1	190.6	9,400	
75	49.5	90.4	21,100		90	54.8	129.3	14,800		100	57.6	158.7	11,400		110	59.6	187.7	8,500	
80	46.0	85.8	19,300		95	52.5	125.6	13,600		105	55.7	155.4	10,400		115	58.0	184.7	7,700	
85	42.3	80.7	17,600		100	50.0	121.6	12,400		110	53.8	151.9	9,500		120	56.3	181.5	6,900	
90	38.3	74.8	16,200		105	47.5	117.2	11,400		115	51.8	148.1	8,700		125	54.7	178.0	6,200	
95	33.8	67.9	15,000		110	44.8	112.4	10,500		120	49.7	144.0	7,900		130	53.0	174.4	5,600	
100	28.8	59.7	13,800		115	42.1	107.1	9,700		125	47.6	139.6	7,200		135	51.3	170.5	5,000	
105	22.8	49.4	12,800		120	39.1	101.3	8,900		130	45.4	134.8	6,600		140	49.5	166.3	4,400	
					125	36.0	94.8	8,200		135	43.1	129.7	6,000		145	47.7	161.9	3,900	
					130	32.6	87.5	7,600		140	40.7	124.1	5,400		150	45.8	157.2	3,500	
					135	28.9	79.0	7,000		145	38.2	118.1	4,900		155	43.9	152.2	3,000	
					140	24.6	69.1	6,500		150	35.6	111.4	4,500						
					145	19.5	56.8	6,000		155	32.8	104.1	4,000						
										160	29.7	95.8	3,600						
										165	26.3	86.4	3,200						
32	76.3	123.3	67,500		30	80.5	164.5	72,800		34	80.8	194.2	60,000		36	80.2	193.9	55,200	
34	75.3	122.7	62,000		32	79.8	164.1	66,400		36	80.2	193.9	55,200		38	79.6	193.5	51,100	
36	74.3	122.2	57,300		34	79.1	163.7	60,900		40	79.0	193.1	47,500		45	77.4	192.1	40,100	
38	73.3	121.6	53,200		36	78.3	163.3	56,200		50	75.9	190.9	34,400		55	74.3	189.6	29,900	
40	72.4	121.0	49,500		38	77.6	162.9	52,000		60	72.7	188.1	26,000		65	71.2	186.5	23,200	
45	69.8	119.3	42,200		40	76.9	162.5	48,400		70	69.6	184.7	20,700		75	67.9	182.7	18,500	
50	67.3	117.3	36,500		45	75.0	161.2	41,000		80	66.3	180.6	16,600		85	64.6	178.3	15,000	
55	64.7	115.1	32,000		50	73.2	159.8	35,300		90	63.0	175.9	13,600		95	61.3	173.2	12,300	
60	62.0	112.6	28,400		55	71.3	158.2	30,900		100	59.5	170.4	11,200		105	57.8	167.4	10,200	
65	59.2	109.8	25,400		60	69.4	156.4	27,200		110	56.0	164.1	9,200		115	54.1	160.6	8,400	
70	56.4	106.6	22,900		65	67.4	154.4	24,200		120	52.2	156.8	7,600		125	50.3	152.8	6,900	
75	53.5	103.1	20,700		70	65.5	152.2	21,700		130	48.3	148.5	6,300		135	46.3	143.9	5,700	
80	50.5	99.2	18,900		75	63.5	149.9	19,500		140	44.1	139.0	5,200		145	41.9	133.6	4,700	
85	47.3	94.8	17,200		80	61.5	147.3	17,600		150	39.6	127.8	4,200		155	37.2	121.5	3,800	
90	44.0	90.0	15,800		85	59.4	144.4	16,000		160	34.6	114.6	3,400		165	31.9	106.9	3,000	
95	40.4	84.4	14,500		90	57.3	141.3	14,600		165	31.9	106.9	3,000						
100	36.6	78.2	13,400		95	55.2	138.0	13,300											
105	32.4	70.9	12,400		100	53.0	134.4	12,200											
110	27.6	62.2	11,500		105	50.7	130.4	11,200											
115	21.9	51.3	10,700		110	48.3	126.2	10,300											
24	81.0	135.0	102,200		115	45.9	121.5	9,400		125	50.3	152.8	6,900		130	48.3	148.5	6,300	
26	80.1	134.7	90,700		120	43.3	116.5	8,700		135	46.3	143.9	5,700		140	44.1	139.0	5,200	
28	79.2	134.4	81,400		125	40.7	110.9	8,000		145	41.9	133.6	4,700		150	39.6	127.8	4,200	
30	78.3	134.0	73,700		130	37.8	104.8	7,300		155	37.2	121.5	3,800		160	34.6	114.6	3,400	
32	77.4	133.5	67,300		135	34.8	98.0	6,700		165	31.9	106.9	3,000						
34	76.5	133.1	61,800		140	31.5	90.3	6,200											
36	75.5	132.6	57,100		145	27.9	81.6	5,700											
38	74.7	132.0	53,000		150	23.8	71.3	5,200											
40	73.8	131.5	49,300		155	18.9	58.5	4,800											
45	71.4	129.9	42,000																
50	69.1	128.1	36,300		30	81.1	174.6	67,500		36	80.7	204.0	54,900		38	80.1	203.7	50,800	
55	66.7	126.1	31,800		32	80.4	174.3	66,100		40	79.5	203.3	47,100		45	78.1	202.3	39,700	
60	64.3	123.8	28,200		34	79.7	173.9	60,600		50	76.6	201.2	34,000		55	75.1	199.9	29,500	
65	61.8	121.3	25,200		36	79.0	173.5	55,800		60	73.6	198.5	25,900		65	72.1	197.0	22,900	
70	59.3	118.4	22,700		38	78.3	173.1	51,700		70	70.6	195.3	20,300		75	69.1	193.5	18,200	
75	56.7	115.3	20,500		40	77.6	172.7	48,100		80	67.6	191.5	16,300		85	66.0	189.4	14,700	
80	54.0	111.9	18,600		45	75.9	171.5	40,700		90	64.4	187.0	13,200		95	62.8	184.6	12,000	
85	51.2	108.0	17,000		50	74.2	170.2	35,000		100	61.2	181.9	10,800		105	59.5	179.1	9,800	
90	48.4	103.8	15,600		55	72.4	168.7	30,500		110	57.9	176.0	8,900		115	56.2	172.8	8,000	
95	45.3	99.1	14,300		60	70.6	167.0	26,900		120	54.4	169.3	7,300		125	52.6	165.6	6,600	
100	42.2	93.9	13,200		65	68.8	165.2	23,900		130	50.8	161.7	6,000		135	48.9	157.5	5,400	
105	38.8	88.0	12,200		70	67.0	163.2	21,300		140	47.0	152.9	4,800		145	45.0	148.1	4,300	
110	35.1	81.4	11,300		75	65.2	160.9	19,200		150	43.0	142.9	3,800		155	40.8	137.4	3,400	
115	31.0	73.7	10,400		80	63.3	158.5	17,300		160	38.6	131.3	3,000						
120	26.5	64.6	9,700		85	61.4	155.9	15,700			</								