



MANITOWOC ENGINEERING CO.

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



LIFT CRANE CAPACITIES

MEETS
ANSI B30.5
REQUIREMENTS

**3900
CRAWLER**

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.

HOIST REEVING FOR MAIN LOAD BLOCK					
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 AND WHIP LINE SPECIFICATIONS	
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)	

MAXIMUM BOOM AND JIB LENGTHS* LIFTED UNASSISTED					
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.

(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED		
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	42.3	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					65	28.7	40.3	27,100		26			
	22	74.2	64.4	137,500		70	18.5	28.9	24,500		28	75.6	93.8	91,700
	24	72.1	63.8	118,500							30	74.3	93.3	82,400
	26	70.1	63.1	104,100		16	81.1	85.7	200,000		32	73.0	92.7	74,700
	28	68.1	62.3	92,700		17	80.4	85.5	179,700		34	71.6	92.1	68,300
70	28	66.0	61.5	83,400	80	18	79.6	85.4	162,900		36	70.3	91.4	62,800
	30	63.9	60.5	75,800		19	78.9	85.2	148,800		38	68.9	90.6	58,100
	32	61.8	59.5	69,400		20	78.2	85.0	137,000		40	67.5	89.8	54,000
	34	59.6	58.4	63,900		22	76.7	84.5	118,000		42	66.2	89.0	50,400
	36	57.3	57.2	59,200		24	75.2	84.0	103,500		44	64.6	88.6	46,300
	38	55.0	55.8	55,100		26	73.8	83.5	92,000		46	62.6	86.6	43,000
						28	72.3	82.9	82,800		48	59.0	83.8	37,400
	40	52.7	54.4	51,500		30	70.8	82.2	75,100		50	55.2	80.6	32,900
	42	50.4	50.1	44,200							52	51.2	76.8	29,300
	44	48.1	44.7	38,500		32	69.2	81.5	68,700		54	47.0	72.5	26,300
80	46	45.8	41.4	33,100	90	34	67.7	80.7	63,200		56	42.5	67.4	23,800
	48	43.5	37.6	28,100		36	66.1	79.8	58,500		58	37.5	61.5	21,600
	50	41.2	33.2	23,500		38	64.6	78.9	54,400		60	31.9	54.3	19,800
	52	38.9	29.2	19,500		40	63.0	77.9	50,800		62	25.3	46.1	18,200
	54	36.6	25.2	16,100							64	16.3	31.9	16,700
	56	34.3	21.2	13,100		42	61.5	76.1	43,500					
	58	32.0	17.2	10,600		44	59.9	71.8	37,800		66	52.1	85.6	26,100
	60	29.7	13.2	8,100		46	58.3	68.0	33,300		68	48.4	81.5	23,600
	62	27.4	9.2	5,600		48	56.7	64.2	29,700		70	44.5	76.7	21,500
	64	25.1	5.2	3,100		50	55.1	60.4	26,700		72	40.2	71.2	19,600
90	66	22.8	1.2	600	100	52	53.5	56.8	24,200		74	35.5	64.8	18,000
	68	20.5	-2.8	-		54	51.9	53.1	21,700		76	30.3	57.0	16,000
	70	18.2	-6.8	-		56	50.3	49.4	19,200		78	24.0	47.3	14,500
	72	15.9	-10.8	-		58	48.7	45.7	16,700		80	15.5	33.3	14,200
	74	13.6	-14.8	-		60	47.1	42.7	14,200					
	76	11.3	-18.8	-		62	45.5	39.7	12,200					
	78	9.0	-22.8	-		64	43.9	36.7	10,200					
	80	6.7	-26.8	-		66	42.3	33.7	8,200					
	82	4.4	-30.8	-		68	40.7	30.7	6,200					
	84	2.1	-34.8	-		70	39.1	27.7	4,200					

Capacities continued
on reverse side.

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	13.500		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	
	81.2	125.2	112.500		125	36.0	94.8	8.200		135	43.1	129.7	6.000		145	47.7	161.9	3.900	
26	79.3	124.6	90.900		130	32.6	87.5	7.600		140	40.7	124.1	5.400		150	45.8	157.2	3.500	
28	78.3	124.2	81.600		135	28.9	79.0	7.000		145	38.2	118.1	4.900		155	43.9	152.2	3.000	
30	77.3	123.7	73.900		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						
32	76.3	123.3	67.500		30	80.5	164.5	72.800		160	29.7	95.8	3.600						
34	75.3	122.7	62.000		32	79.8	164.1	66.400		165	26.3	86.4	3.200						
36	74.3	122.2	57.300		34	79.1	163.7	60.900											
38	73.4	121.6	53.200		36	78.3	163.3	56.200											
40	72.4	121.0	49.500		38	77.6	162.9	52.000											
45	69.8	119.3	42.200		40	76.9	162.5	48.400											
50	67.3	117.3	36.500		45	75.0	161.2	41.000											
55	64.7	115.1	32.000		50	73.2	159.8	35.300											
60	62.0	112.6	28.400		55	71.3	158.2	30.900											
65	59.2	109.8	25.400		60	69.4	156.4	27.200											
70	56.4	106.6	22.900		65	67.4	154.4	24.200											
75	53.5	103.1	20.700		70	65.5	152.2	21.700											
80	50.5	99.2	18.900		75	63.5	149.9	19.500											
85	47.3	94.8	17.200		80	61.5	147.3	17.600											
90	44.0	90.0	15.800		85	59.4	144.4	16.000											
95	40.4	84.4	14.500		90	57.3	141.3	14.600											
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											
26	80.1	134.7	90.700		120	43.3	116.5	8.700											
28	79.2	134.4	81.400		125	40.7	110.9	8.000											
30	78.3	134.0	73.700		130	37.8	104.8	7.300											
32	77.4	133.5	67.300		135	34.8	98.0	6.700											
34	76.5	133.1	61.800		140	31.5	90.3	6.200											
36	75.6	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																
49	69.1	128.1	36.300		30	81.1	174.6	67.500											
55	66.7	126.1	31.800		32	80.4	174.3	66.100											
60	64.3	123.8	28.200		34	79.7	173.9	60.600											
65	61.8	121.3	25.200		36	79.0	173.5	55.800											
70	59.3	118.4	22.700		38	78.3	173.1	51.700											
75	56.7	115.3	20.500		40	77.5	172.7	48.100											
80	54.0	111.9	18.600		45	75.9	171.5	40.700											
85	51.2	108.0	17.000		50	74.2	170.2	35.000											
90	48.4	103.8	15.600		55	72.4	168.7	30.500											
95	45.3	99.1	14.300		60	70.6	167.0	26.900											
100	42.2	93.9	13.200		65	68.8	165.2	23.900											
105	38.8	88.0	12.200		70	67.0	163.2	21.300											
110	35.1	81.4	11.300		75	65.2	160.9	19.200											
115	31.0	73.7	10.400		80	63.3	158.5	17.300											
120	26.5	64.6	9.700		85	61.4	155.9	15.700											
125	21.0	53.2	9.000		90	59.5	153.1	14.200											
26	80.8	144.9	90.400		95	57.5	150.0	13.000											
28	80.0	144.5	81.100		100	55.5	146.7	11.800											
30	79.1	144.1	73.400		105	53.4	143.1	10.800											
32	78.3	143.8	67.000		110	51.3	139.3	9.900											
34	77.5	143.3	61.500																
36	76.6	142.9	56.800		115	49.1	135.1	9.100											
38	75.8	142.4	52.600		120	46.8	130.6	8.300											
40	74.9	141.3	49.000		125	44.4	125.7	7.600											
45	72.8	140.4	41.600		130	42.0	120.4	7.000											
50	70.7	138.8	36.000		135	39.4	114.5	6.400											
55	68.5	136.9	31.500		140	36.7	108.2	5.800											
60	66.3	134.8	27.800		145	33.7	101.1	5.300											
65	64.0	132.5	24.800		150	30.6	93.1	4.900											
70	61.7	129.9	22.300		155														

Combined From Charts:
No. 6292-A 3-30-81
No. 4770 8-12-80