

**MANITOWOC ENGINEERING CO.**

(A division of The Manitowoc Company, Inc.) Manitowoc, Wisconsin 54220

**LIFTCRANE CAPACITIES****3900
CRAWLER****BOOM NO. 8 WITH OPEN THROAT TOP
74,000 LB. COUNTERWEIGHT**

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii may be based on per cent of tipping, strength of structural components, operating speeds and other factors.

Capacities are for freely suspended loads and do not exceed **75%** of a static load required to tip machine with boom across crawlers. Capacities based on structural competence are shown by shaded areas.

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

OPERATING CONDITIONS: Machine to operate in level position on a firm surface with gantry in working position and under conditions referred to in rigging drawing No. 42925, No. 43258, 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, as well as adverse operating conditions & 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" treads, 15' gantry, 10 or 12 part (No. 42925, No.

43258, No. 48029) or 10 part (No. 48237) boom hoist reeving, two 1½" or 1¾" boom pendants, 1st cwt. 32,000 lbs., 2nd cwt. 26,500 lbs., 3rd cwt. 15,500 lbs. Total counterweight 74,000 pounds.

HOIST REEVEING FOR MAIN LOAD BLOCK						
No. Parts of Line	1	2	3	4	5	6
Max. Load - Lbs.	22,500	45,000	67,500	90,000	112,500	135,000
No. Parts of Line	7	8	9			
Max. Load - Lbs.	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.	
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.	

MAXIMUM BOOM AND JIB LENGTHS LIFTED UNASSISTED											
OVER FRONT OF BLOCKED CRAWLERS						OVER SIDE OF CRAWLERS					
Boom Length	JIB NUMBER					Boom Length	JIB NUMBER				
	104	113	121	123	124		104	113	121	123	124
210'						190'					
200'			30'		30'	180'			30'		30'
190'	30'	30'	60'	30'	60'	170'	30'	30'	60'	30'	60'
180'		40'	60'	50'	60'	160'		40'	60'	60'	60'
170'			40'	60'	60'						

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

(A) DEDUCT FROM CAPACITIES WHEN JIB IS ATTACHED					
Jib Length	Jib No. 104	Jib No. 113	Jib No. 121	Jib No. 123	Jib No. 124
30'	2,250 Lb.	2,910 Lb.	1,800 Lb.	2,500 Lb.	1,800 Lb.
40'	— — —	3,550 Lb.	2,050 Lb.	3,100 Lb.	2,050 Lb.
50'	— — —	— — —	2,300 Lb.	3,700 Lb.	2,300 Lb.
60'	— — —	— — —	2,500 Lb.	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:	Boom Lgth.: Feet	Oper. Rad.: Feet	Boom Ang.: Deg.	Boom Point: Elev.	Capacity:
60	16	78.1	65.4	180,200	70	45	53.8	63.2	43,800	90	18	80.8	95.6	162,600	110	19	81.2	105.5	148,400
	17	77.1	65.2	180,200		50	48.5	59.2	38,100		19	80.2	95.4	148,500		20	80.6	105.4	136,500
	18	76.1	65.0	163,400		55	42.8	54.3	33,700		20	79.5	95.2	136,600		22	79.4	105.0	117,500
	19	75.2	64.7	149,400		60	36.4	48.2	30,000		22	78.2	94.8	117,600		24	78.2	104.6	103,000
	20	74.2	64.4	137,500		65	28.7	40.4	27,100		24	76.9	94.4	103,100		26	77.1	104.2	91,500
						70	18.5	29.0	24,500		26	75.6	93.9	91,700		28	75.9	103.7	82,300
	22	72.2	63.8	118,600		16	81.1	85.8	179,700		28	74.2	93.4	82,400		30	74.7	103.2	74,600
	24	70.1	63.2	104,100		17	80.4	85.6	162,900		30	73.0	92.8	74,700		32	73.5	102.6	68,200
	26	68.1	62.4	92,700		18	79.6	85.4	148,800		32	71.6	92.1	68,300		34	72.3	102.0	62,700
	28	66.0	61.5	83,400		19	78.9	85.2	137,000		34	70.3	91.4	62,800		36	71.1	101.3	58,000
70	30	63.9	60.6	75,800	80	20	78.2	85.0	137,000	100	36	68.9	90.7	58,100	120	38	69.9	100.6	53,900
	32	61.8	59.6	69,400		22	76.7	84.6	118,000		38	67.5	89.9	54,000		40	68.7	99.9	50,200
	34	59.6	58.5	63,900		24	75.2	84.1	103,500		40	66.2	89.0	50,400		45	65.6	97.8	42,900
	36	57.3	57.2	59,200		26	73.8	83.5	92,000		45	62.6	86.6	43,000		50	62.4	95.3	37,200
	38	55.0	55.9	55,100		28	72.3	82.9	82,800		50	59.0	83.9	37,400		55	59.1	92.5	32,800
	40	52.7	54.4	51,500		30	70.8	82.2	75,100		55	55.2	80.6	32,900		60	55.7	89.3	29,100
	45	46.4	50.2	44,200		32	69.2	81.5	68,700		60	51.2	76.9	29,300		65	52.1	85.7	26,100
	50	39.4	44.8	38,500		34	67.7	80.7	63,200		65	47.0	72.5	26,300		70	48.4	81.5	23,600
	55	31.1	37.7	34,100		36	66.1	79.9	58,500		70	42.5	67.5	23,800		75	44.5	76.8	21,500
	60	20.0	27.3	30,500		38	64.6	79.0	54,400		75	37.5	61.5	21,600		80	40.2	71.3	19,600
80	16	79.8	75.6	179,900	90	40	63.0	78.0	50,800	110	80	31.9	54.3	19,800	130	85	35.5	64.8	18,000
	17	79.0	75.4	179,900		45	58.9	75.2	43,500		85	25.3	45.2	18,200		90	30.3	57.1	16,600
	18	78.1	75.2	163,100		50	54.6	71.9	37,800		90	16.3	32.0	16,700		95	24.0	47.3	15,300
	19	77.3	75.0	149,100		55	50.0	68.0	33,300							100	15.5	33.4	14,200
	20	76.5	74.8	137,200		60	45.2	63.5	29,700										
	22	74.8	74.3	118,200		65	39.9	58.0	26,700										
	24	73.1	73.7	103,700		70	33.9	51.4	24,200										
	26	71.4	73.0	92,300		75	26.9	42.9	22,100										
	28	69.6	72.3	83,000		80	17.3	30.5	20,200										
	30	67.9	71.6	75,400															
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	36	62.5	68.8	58,800															
	38	60.6	67.7	54,700															
	40	58.7	66.5	51,100															

Capacities continued
on reverse side.

Form No. 5072, 9-22-78/GAO