

1015

Duty Cycle Capacities

Boom No. 83A
53,000 Lb. Counterweight
23 Ft. 6 in. Crawlers Extended
Crawler Machine on a Barge
0 Degree thru 1 Degree and
1 Degree thru 3 Degree Machine List
360 Degree Rating - Limited Duty

LIFTING CAPACITIES: Capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 67.5% of a static tipping load. Capacities are based on tipping, structural competence(*), operating speeds and other factors.

Duty cycle capacities shown are intended for limited duration applications. Continuous operation at these capacities may reduce component life.

Weight of bucket is considered part of load. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate on a firm uniformly supporting surface, machine list not to exceed degrees noted and gantry up. Refer to boom rigging **No. A14196** and Wire Rope Specification chart **No. 8697-C**. Crane operator judgment must be used to allow for adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation at barge deck to center of gravity of the freely suspended load. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius.

MACHINE EQUIPMENT: Machine equipped with 23 Ft. 6 in. extendible crawlers, 39-3/8 in. treads, 9 Ft. 7 in. gantry, 25 Ft. live mast, 12 part boom hoist reeving, two 1-1/2 in. pendants and 53,000 Lb. counterweight.

Upper Boom Point Deduct

Deduct 1,300 Lbs. from capacities when upper boom point is attached.

Auxiliary Drum Deduct

Deduct 2,000 Lbs. from boom capacities when boom butt is equipped with auxiliary drum.

Wire Rope Guard Deduct

Deduct 1,000 Lbs. from boom capacities when boom top is equipped with wire rope guard **No. A13283**.

Maximum Boom Lengths Lifted Unassisted

Over Front of Blocked Crawlers	Over Rear of Blocked Crawlers	Over Side of Extended Crawlers	Over Side of Retracted Crawlers
160 Ft.	160 Ft.	140 Ft.	130 Ft.

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds
50 Ft. Boom			
30	64.1	65,500 *	57,200 *
35	57.4	61,900 *	56,100 *
40	50.0	52,100	48,400
45	41.6	44,200	41,500
50	31.2	38,000	36,100

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds
60 Ft. Boom			
30	68.8	65,100 *	56,600 *
35	63.4	61,900 *	56,000 *
40	57.8	51,800	47,500
45	51.8	44,100	40,800
50	45.2	38,000	35,500
55	37.6	33,100	31,200
60	28.1	29,100	27,600

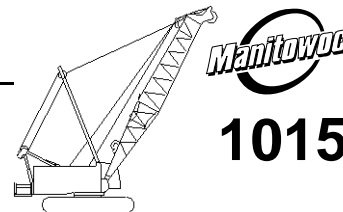


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70 Ft. Boom			
30	72.0	64,900 *	56,400 *
35	67.5	61,800	55,200
40	62.9	51,500	46,600
45	58.1	43,800	40,100
50	53.1	37,900	34,900
55	47.6	33,100	30,700
60	41.5	29,100	27,200
65	34.5	25,800	24,300
70	25.9	23,000	21,800
80 Ft. Boom			
25	78.0	64,300 *	55,800 *
30	74.3	64,500 *	56,300 *
35	70.5	60,800	53,500
40	66.6	50,700	45,200
45	62.6	43,100	38,900
50	58.4	37,200	33,800
55	54.0	32,400	29,800
60	49.3	28,600	26,400
65	44.2	25,300	23,500
70	38.6	22,600	21,100
75	32.1	20,200	19,000
80	24.0	18,100	17,100
90 Ft. Boom			
25	79.4	61,700 *	55,500 *
30	76.1	60,000 *	54,500 *
35	72.8	58,300 *	52,300
40	69.4	50,200	44,200
45	65.9	42,600	38,000
50	62.3	36,800	33,100
55	58.6	32,100	29,100
60	54.7	28,300	25,800
65	50.6	25,100	23,000
70	46.2	22,300	20,600
75	41.5	20,000	18,500
80	36.2	17,900	16,700
85	30.1	16,100	15,100
90	22.5	14,500	13,700

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds
100 Ft. Boom			
25	80.4	57,500 *	
30	77.5	56,000 *	50,600 *
35	74.5	54,600 *	49,300 *
40	71.5	49,600	43,100
45	68.4	42,100	37,100
50	65.3	36,300	32,300
55	62.1	31,600	28,400
60	58.7	27,800	25,100
65	55.2	24,600	22,300
70	51.6	21,900	20,000
75	47.8	19,600	17,900
80	43.7	17,600	16,100
85	39.2	15,800	14,600
90	34.2	14,200	13,200
95	28.5	12,800	11,900
100	21.3	11,500	10,800
110 Ft. Boom			
25	81.3	50,800 *	
30	78.7	49,600 *	44,500 *
35	76.0	48,400 *	43,400 *
40	73.3	47,200 *	42,300
45	70.5	41,800	36,400
50	67.7	36,000	31,700
55	64.8	31,400	27,900
60	61.9	27,600	24,700
65	58.8	24,400	22,000
70	55.7	21,800	19,600
75	52.4	19,400	17,600
80	49.0	17,400	15,900
85	45.4	15,700	14,300
90	41.5	14,100	12,900
95	37.2	12,700	11,700
100	32.5	11,500	10,600
105	27.1	10,300	9,500
110	20.2	9,300	8,600


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120 Ft. Boom			
30	79.6	46,300 *	41,300 *
35	77.2	45,200 *	40,400 *
40	74.7	44,100 *	39,400 *
45	72.2	41,200	35,500
50	69.7	35,500	30,900
55	67.1	30,900	27,100
60	64.4	27,100	24,000
65	61.7	24,000	21,300
70	58.9	21,300	19,000
75	56.1	19,000	17,000
80	53.1	17,000	15,300
85	50.0	15,300	13,700
90	46.7	13,700	12,400
95	43.3	12,300	11,200
100	39.6	11,100	10,000
105	35.6	9,900	9,000
110	31.1	8,900	8,100
115	25.8	8,000	7,300
120	19.3	7,100	6,500
130 Ft. Boom			
30	80.4	40,800 *	
35	78.2	39,900 *	35,300 *
40	75.9	39,000 *	34,500 *
45	73.6	38,000 *	33,700 *
50	71.3	35,000	30,100
55	68.9	30,400	26,400
60	66.5	26,700	23,300
65	64.1	23,500	20,700
70	61.6	20,900	18,400
75	59.0	18,600	16,500
80	56.4	16,600	14,800
85	53.6	14,900	13,200
90	50.8	13,300	11,900
95	47.9	11,900	10,700
100	44.8	10,700	9,600
105	41.5	9,600	8,600
110	37.9	8,600	7,700
115	34.1	7,600	6,900
120	29.8	6,800	6,100
125	24.8	6,000	5,400
130	18.5	5,200	4,700

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds
140 Ft. Boom			
30	81.1	39,000 *	
35	79.0	38,200 *	33,600 *
40	76.9	37,400 *	32,900 *
45	74.8	36,400 *	32,200 *
50	72.7	34,500	29,300
55	70.5	29,900	25,600
60	68.3	26,200	22,600
65	66.1	23,100	20,000
70	63.8	20,400	17,800
75	61.5	18,100	15,900
80	59.1	16,200	14,200
85	56.6	14,400	12,700
90	54.1	12,900	11,300
95	51.5	11,500	10,100
100	48.8	10,300	9,000
105	46.0	9,200	8,100
110	43.0	8,100	7,200
115	39.9	7,200	6,300
120	36.5	6,400	5,600
125	32.8	5,600	4,900
130	28.6	4,900	4,200
135	23.8	4,200	
150 Ft. Boom			
30	81.7	35,200 *	
35	79.8	34,400 *	30,100 *
40	77.8	33,700 *	29,500 *
45	75.9	33,000 *	28,900 *
50	73.9	32,300 *	28,200 *
55	71.9	29,500	25,000
60	69.8	25,800	22,000
65	67.8	22,700	19,500
70	65.7	20,100	17,300
75	63.5	17,800	15,400
80	61.4	15,900	13,700
85	59.1	14,100	12,300
90	56.9	12,600	10,900
95	54.5	11,200	9,800
100	52.1	10,000	8,700
105	49.6	8,900	7,700
110	47.0	7,900	6,800
115	44.3	7,000	6,000
120	41.5	6,200	5,300
125	38.4	5,400	4,600
130	35.2	4,700	4,000
135	31.6	4,000	

Manitowoc Cranes, Inc.

Manitowoc, Wisconsin 54220 U.S.A.



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Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds
160 Ft. Boom			
35	80.4	32,000 *	
40	78.6	32,000 *	27,300 *
45	76.8	31,400 *	27,300 *
50	74.9	30,700 *	26,700 *
55	73.0	29,000	24,300
60	71.1	25,300	21,400
65	69.2	22,200	18,800
70	67.3	19,600	16,700
75	65.3	17,400	14,800
80	63.3	15,400	13,200
85	61.3	13,700	11,700
90	59.2	12,100	10,400
95	57.1	10,800	9,200
100	54.9	9,600	8,200
105	52.6	8,500	7,200
110	50.3	7,500	6,300
115	47.9	6,600	5,500
120	45.4	5,700	4,800
125	42.8	4,900	4,100
130	40.1	4,200	