



Liftcrane Boom Capacities

**50,900 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating**

**Meets
ASME B30.5
Requirements**



12000-1

LIFTING CAPACITIES:

1. Rated loads included in the charts are the maximum allowable freely suspended loads at a given boom length, boom angle and load radius, and have been determined for the machine standing level on firm supporting surface under ideal operating conditions. The user must limit or de-rate rated loads to allow for adverse conditions (such as soft or uneven ground, out-of-level conditions, wind, side loads, pendulum action, jerking or sudden stopping of loads, inexperience of personnel, and multiple machine lifts).
2. Capacities do not exceed 75% of minimum tipping loads. Capacities based on factors other than machine stability such as structural competence are shown by asterisk * in the charts.
3. Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
4. Do not attempt to lift where no radius on load chart is listed as crane may tip or collapse.
5. Weight of hooks, hook blocks, slings and other lifting devices beneath boom and point sheaves are part of the total load. Their total weight must be subtracted from the rated load to obtain the weight that can be lifted.
6. Load radius is horizontal distance from axis of rotation 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 radius. In all cases, operating radius shall govern capacity.
7. Least stable position is over the side.
8. Boom point elevation is vertical distance from ground level to centerline of boom point shaft.
9. In all cases, upper boom point capacities cannot exceed those listed for Liftcrane Boom capacity reduced by 700 lb.
10. Boom lengths that can attach upper boom point are from 50 ft to 180 ft.
11. When lifting over boom point with upper boom point, rated loads for the boom must be reduced as shown below.
12. Lifting capacities listed apply only to the machine as originally manufactured and designed. Modifications to this machine or use of equipment other than that specified can reduce operating capacity.
13. Machine travel with load (pick and carry).
 - A. Travel with crane upperworks in-line with crawlers. Grade in any direction must not exceed 1 percent (0.5 degrees).
 - B. Travel surface must be firm, level and uniformly supporting. Capacity charts are based on static conditions; therefore judgment must be used to allow for dynamic effects of traveling with load. Carry load as close to ground as possible. Stabilize load with taglines. Travel slowly and smoothly to avoid shock loading boom and rigging.

Upper Boom Point	
Deduct (lb)	700

Hoist Reeving for Upper Boom Point

No. of Parts of Line	1	2
Maximum Loads (lb)	25,000	50,000



Liftcrane Boom Capacities

50,900 lb Crane Counterweight
 Extended Position Crawlers
 360 Degree Rating

**Meets
 ASME B30.5
 Requirements**

12000-1

OPERATING CONDITION:

- The machine must be reeved and set-up as stated in the Operator Manual. If this manual is missing, obtain replacement.
 - Boom backstops are required for all boom lengths.
 - Gantry must be fully raised position for all operation.
 - Crawlers must be fully extended and be locked in position.
 - The crane must be leveled to within 1% on a firm supporting surface.
 - Refer to operator manual for operating guidelines.
- See Operator Manual Section 6 for Wire Rope Specifications.
- Machine equipped with 22 ft 3 in crawlers, 36 in treads, 10 parts of boom hoist reeving. 50,900 lb crane counterweight.

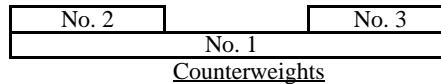
Maximum Boom Lengths Lifted Unassisted
Over End of Crawlers
Boom Length
190 ft
Load block, hook and weight ball on ground at start.

Hoist Reeving for Main Boom Loads

No. of Parts of Line	1	2	3	4	5
Maximum Loads (lb)	25,000	50,000	75,000	100,000	125,000

No. of Parts of Line	6	7	8	9
Maximum Loads (lb)	150,000	175,000	200,000	204,800

Assembling the Counterweight
 50,900 lb Crane counterweight (No. 1 - No. 3)
 Without carbody weight



Operation of this equipment in excess of rated loads or disregard of instruction voids the warranty.



Liftcrane Boom Capacities

50,900 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



12000-1

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
50 ft Boom			
12.0	81.4	56.5	204,800 *
13.0	80.2	56.3	189,800 *
14.0	79.0	56.1	177,300 *
15.0	77.9	55.9	165,600 *
16.0	76.7	55.7	155,800 *
17.0	75.5	55.4	143,800 *
18.0	74.3	55.1	130,400
19.0	73.1	54.8	119,400
20.0	71.9	54.5	109,600
22.0	69.5	53.7	94,500
24.0	67.0	52.9	82,200
26.0	64.4	51.9	72,400
28.0	61.8	50.9	65,200
30.0	59.2	49.7	58,700
32.0	56.4	48.4	53,800
34.0	53.6	46.9	49,600
36.0	50.7	45.3	46,100
38.0	47.6	43.5	42,500
40.0	44.3	41.5	39,400
45.0	35.2	35.3	33,600
60 ft Boom			
13.5	81.4	66.4	183,600 *
14.0	80.9	66.3	176,600
15.0	79.9	66.1	163,800
16.0	78.9	65.9	150,700
17.0	78.0	65.7	139,400
18.0	77.0	65.5	129,200
19.0	76.0	65.2	118,400
20.0	75.0	64.9	108,700
22.0	73.0	64.3	93,800
24.0	71.0	63.7	81,700
26.0	69.0	62.9	72,300
28.0	66.9	62.0	65,200
30.0	64.8	61.1	58,700
32.0	62.6	60.1	53,800
34.0	60.4	59.0	49,600
36.0	58.2	57.7	46,100
38.0	55.9	56.4	42,500
40.0	53.5	54.9	39,400
45.0	47.2	50.7	33,600
50.0	40.2	45.3	29,400
55.0	31.9	38.2	26,000

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
70 ft Boom			
15.0	81.4	76.3	153,700
16.0	80.5	76.1	142,000
17.0	79.7	75.9	131,900
18.0	78.9	75.7	122,700
19.0	78.0	75.5	115,100
20.0	77.2	75.3	107,700
22.0	75.5	74.8	93,000
24.0	73.8	74.2	81,200
26.0	72.1	73.5	72,100
28.0	70.3	72.8	65,000
30.0	68.6	72.1	58,700
32.0	66.8	71.2	53,800
34.0	65.0	70.3	49,600
36.0	63.2	69.3	46,100
38.0	61.3	68.2	42,500
40.0	59.4	67.0	39,400
45.0	54.5	63.7	33,600
50.0	49.2	59.6	29,300
55.0	43.5	54.8	25,800
60.0	37.1	48.7	22,900
80 ft Boom			
16.5	81.4	86.2	129,300
17.0	81.0	86.1	125,200
18.0	80.3	85.9	116,700
19.0	79.6	85.7	109,900
20.0	78.8	85.5	103,400
22.0	77.4	85.1	91,200
24.0	75.9	84.6	80,700
26.0	74.4	84.0	71,800
28.0	72.9	83.4	64,900
30.0	71.4	82.7	58,700
32.0	69.9	82.0	53,800
34.0	68.3	81.2	49,600
36.0	66.8	80.4	46,100
38.0	65.2	79.5	42,500
40.0	63.6	78.5	39,400
45.0	59.5	75.7	33,600
50.0	55.2	72.4	29,200
55.0	50.7	68.5	25,600
60.0	45.8	64.0	22,700
65.0	40.5	58.5	20,300
70.0	34.6	51.9	18,400

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
90 ft Boom			
18.0	81.4	96.1	111,400
19.0	80.7	95.9	105,000
20.0	80.1	95.7	99,200
22.0	78.8	95.3	89,300
24.0	77.5	94.9	80,200
26.0	76.2	94.4	71,600
28.0	74.8	93.9	64,800
30.0	73.5	93.3	58,700
32.0	72.2	92.6	53,600
34.0	70.8	91.9	49,400
36.0	69.5	91.2	45,900
38.0	68.1	90.4	42,300
40.0	66.7	89.5	39,100
45.0	63.2	87.1	33,400
50.0	59.5	84.3	28,900
55.0	55.8	81.1	25,300
60.0	51.8	77.4	22,400
65.0	47.6	73.0	20,100
70.0	43.0	68.0	18,200
75.0	38.1	62.0	16,500
80.0	32.5	54.8	15,000



Liftcrane Boom Capacities

50,900 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



12000-1

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
100 ft Boom			
19.5	81.4	106.0	97,700
20.0	81.1	105.9	95,100
22.0	79.9	105.5	85,900
24.0	78.8	105.1	78,000
26.0	77.6	104.7	71,100
28.0	76.4	104.2	64,600
30.0	75.2	103.7	58,500
32.0	74.0	103.1	53,400
34.0	72.8	102.5	49,200
36.0	71.6	101.8	45,600
38.0	70.4	101.1	42,100
40.0	69.2	100.4	38,900
45.0	66.1	98.3	33,200
50.0	62.9	95.8	28,700
55.0	59.6	93.0	25,100
60.0	56.2	89.8	22,200
65.0	52.6	86.2	19,900
70.0	48.9	82.0	17,800
75.0	45.0	77.2	16,100
80.0	40.7	71.8	14,600
85.0	36.0	65.3	13,500
90.0	30.8	57.6	12,400
110 ft Boom			
20.9	81.4	115.9	86,800
22.0	80.8	115.7	82,300
24.0	79.8	115.3	75,100
26.0	78.7	114.9	68,600
28.0	77.7	114.5	63,400
30.0	76.6	114.0	58,300
32.0	75.5	113.5	53,200
34.0	74.4	112.9	49,000
36.0	73.3	112.3	45,500
38.0	72.3	111.7	42,000
40.0	71.2	111.0	38,900
45.0	68.4	109.1	33,000
50.0	65.5	107.0	28,500
55.0	62.6	104.5	24,900
60.0	59.6	101.7	22,000

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
110 ft Boom			
65.0	56.5	98.5	19,400
70.0	53.3	94.9	17,500
75.0	50.0	90.9	15,900
80.0	46.5	86.4	14,400
85.0	42.7	81.2	13,000
90.0	38.7	75.3	12,000
95.0	34.3	68.4	11,100
120 ft Boom			
22.4	81.4	125.7	77,600
24.0	80.6	125.5	72,700
26.0	79.7	125.1	66,600
28.0	78.7	124.7	61,600
30.0	77.7	124.3	56,900
32.0	76.7	123.8	52,800
34.0	75.8	123.3	49,000
36.0	74.8	122.8	45,400
38.0	73.8	122.2	41,900
40.0	72.8	121.6	38,700
45.0	70.3	119.9	32,800
50.0	67.7	117.9	28,400
55.0	65.1	115.7	24,800
60.0	62.4	113.1	21,800
65.0	59.7	110.3	19,400
70.0	56.8	107.2	17,500
75.0	53.9	103.7	15,900
80.0	50.9	99.8	14,400
85.0	47.7	95.4	13,000
90.0	44.4	90.5	12,000
95.0	40.8	85.0	11,000
100.0	37.0	78.7	10,100
105.0	32.8	71.4	9,400
130 ft Boom			
23.9	81.4	135.6	70,100
24.0	81.4	135.6	69,900
26.0	80.5	135.3	64,100
28.0	79.6	134.9	59,400
30.0	78.7	134.5	55,100
32.0	77.8	134.1	51,500
34.0	76.9	133.6	48,100
36.0	76.0	133.1	44,800
38.0	75.1	132.6	41,600
40.0	74.1	132.0	38,700
45.0	71.8	130.5	32,800
50.0	69.5	128.7	28,300
55.0	67.1	126.6	24,600

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
130 ft Boom			
60.0	64.7	124.4	21,600
65.0	62.2	121.8	19,200
70.0	59.7	119.0	17,300
75.0	57.1	115.9	15,600
80.0	54.4	112.4	14,200
85.0	51.6	108.6	12,800
90.0	48.8	104.4	11,600
95.0	45.7	99.7	10,700
100.0	42.5	94.5	9,800
105.0	39.1	88.6	9,000
110.0	35.5	81.9	8,300
115.0	31.4	74.2	7,600
140 ft Boom			
25.4	81.4	145.5	63,600
26.0	81.2	145.4	62,100
28.0	80.3	145.1	57,700
30.0	79.5	144.7	53,500
32.0	78.7	144.3	49,900
34.0	77.8	143.9	46,700
36.0	77.0	143.4	43,800
38.0	76.1	142.9	41,000
40.0	75.3	142.4	38,200
45.0	73.2	141.0	32,300
50.0	71.0	139.3	28,000
55.0	68.8	137.4	24,400
60.0	66.6	135.4	21,300
65.0	64.4	133.0	19,000
70.0	62.1	130.5	17,100
75.0	59.7	127.7	15,300
80.0	57.3	124.5	13,800
85.0	54.8	121.1	12,600
90.0	52.3	117.4	11,400
95.0	49.6	113.3	10,400
100.0	46.9	108.8	9,600
105.0	44.0	103.8	8,700
110.0	40.9	98.2	7,900
115.0	37.7	92.0	7,200
120.0	34.1	85.0	6,600
125.0	30.3	77.0	5,900



Liftcrane Boom Capacities

50,900 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



12000-1

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
150 ft Boom			
26.9	81.4	155.4	57,900
28.0	81.0	155.2	55,700
30.0	80.2	154.9	51,800
32.0	79.4	154.5	48,300
34.0	78.7	154.1	45,300
36.0	77.9	153.7	42,700
38.0	77.1	153.2	40,100
40.0	76.3	152.7	37,600
45.0	74.3	151.4	32,100
50.0	72.3	149.9	27,600
55.0	70.3	148.1	24,000
60.0	68.3	146.2	21,100
65.0	66.2	144.1	18,600
70.0	64.1	141.7	16,600
75.0	61.9	139.1	15,000
80.0	59.7	136.3	13,500
85.0	57.5	133.2	12,200
90.0	55.2	129.8	11,100
95.0	52.8	126.2	10,100
100.0	50.4	122.2	9,200
105.0	47.8	117.8	8,300
110.0	45.2	113.0	7,500
115.0	42.4	107.7	6,800
120.0	39.5	101.8	6,200
125.0	36.3	95.3	5,600
130.0	32.9	88.0	5,000

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
160 ft Boom			
28.4	81.4	165.3	53,500
30.0	80.8	165.0	50,300
32.0	80.1	164.7	47,100
34.0	79.4	164.3	44,300
36.0	78.6	163.9	41,700
38.0	77.9	163.5	39,200
40.0	77.2	163.0	36,800
45.0	75.3	161.8	31,800
50.0	73.5	160.3	27,500
55.0	71.6	158.7	23,900
60.0	69.7	157.0	20,900
65.0	67.8	155.0	18,500
70.0	65.8	152.8	16,500
75.0	63.8	150.4	14,700
80.0	61.8	147.8	13,300
85.0	59.7	145.0	11,900
90.0	57.6	141.9	10,900
95.0	55.5	138.6	9,900
100.0	53.3	134.9	8,900
105.0	51.0	131.0	8,100
110.0	48.6	126.7	7,400
115.0	46.2	122.1	6,700
120.0	43.7	117.0	6,100
125.0	41.0	111.5	5,500
130.0	38.1	105.3	4,900
135.0	35.1	98.5	4,400
140.0	31.8	90.9	3,900

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
170 ft Boom			
29.9	81.4	175.2	48,900
30.0	81.4	175.2	48,800
32.0	80.7	174.8	45,600
34.0	80.0	174.5	42,800
36.0	79.3	174.1	40,400
38.0	78.6	173.7	38,000
40.0	77.9	173.3	35,800
45.0	76.2	172.1	31,200
50.0	74.5	170.8	27,100
55.0	72.7	169.3	23,600
60.0	70.9	167.6	20,600
65.0	69.1	165.7	18,100
70.0	67.3	163.7	16,200
75.0	65.5	161.5	14,500
80.0	63.6	159.1	13,100
85.0	61.7	156.5	11,700
90.0	59.8	153.6	10,500
95.0	57.8	150.6	9,600
100.0	55.8	147.3	8,700
105.0	53.7	143.7	7,800
110.0	51.6	139.8	7,000
115.0	49.4	135.6	6,300
120.0	47.1	131.1	5,600
125.0	44.7	126.2	5,000
130.0	42.3	120.9	4,500
135.0	39.7	115.1	4,000
140.0	37.0	108.7	3,500
145.0	34.0	101.6	3,100

Manitowoc Cranes

Manitowoc, Wisconsin 54220 U.S.A.



Liftcrane Boom Capacities

50,900 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements

12000-1

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
180 ft Boom			
31.4	81.4	185.1	44,900
32.0	81.2	185.0	44,100
34.0	80.6	184.6	41,500
36.0	79.9	184.3	39,200
38.0	79.3	183.9	36,800
40.0	78.6	183.5	34,700
45.0	77.0	182.4	30,300
50.0	75.4	181.1	26,800
55.0	73.7	179.7	23,600
60.0	72.0	178.2	20,600
65.0	70.3	176.4	18,100
70.0	68.6	174.5	16,200
75.0	66.9	172.5	14,400
80.0	65.2	170.2	12,900
85.0	63.4	167.8	11,700
90.0	61.6	165.1	10,500
95.0	59.8	162.3	9,500
100.0	57.9	159.2	8,500
105.0	56.0	155.9	7,600
110.0	54.1	152.4	6,800
115.0	52.1	148.6	6,100
120.0	50.0	144.5	5,400
125.0	47.9	140.1	4,800
130.0	45.7	135.4	4,300
135.0	43.4	130.3	3,800
140.0	41.0	124.7	3,400

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
190 ft Boom			
32.9	81.4	194.9	41,600
34.0	81.1	194.8	40,300
36.0	80.5	194.4	38,000
38.0	79.8	194.1	35,700
40.0	79.2	193.7	33,600
45.0	77.7	192.7	29,400
50.0	76.1	191.5	25,900
55.0	74.6	190.1	22,900
60.0	73.0	188.7	20,200
65.0	71.4	187.0	17,900
70.0	69.8	185.2	15,800
75.0	68.2	183.3	14,100
80.0	66.6	181.2	12,600
85.0	64.9	178.9	11,300
90.0	63.2	176.4	10,200
95.0	61.5	173.8	9,100
100.0	59.8	171.0	8,100
105.0	58.0	167.9	7,200
110.0	56.2	164.6	6,400
115.0	54.4	161.1	5,700
120.0	52.5	157.4	5,100
125.0	50.6	153.4	4,500
130.0	48.6	149.1	3,900
135.0	46.5	144.5	3,400