

Liftcrane Boom Capacities

39,000 lb Crane Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



8500-1

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 derate 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 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. Upper boom point capacity for liftcrane service with single part line is 17,000 lb. In all cases, upper boom point capacities cannot exceed those listed for Liftcrane Boom capacity reduced by 320 lb.
10. When lifting over boom point with upper boom point, rated loads for the boom must be reduced as shown below.

Jib length	Upper Boom Point	30 ft.	40 ft.	50 ft.	60 ft.
Deduct (lb)	320	Not Applicable			

11. 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.
12. 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.



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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.
- Jib installation is prohibited.

Maximum Boom Lengths Lifted Unassisted
Over End of Crawlers
190 ft (a) 180 ft
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be attached on 190 ft boom.

- See Operator Manual Section 6 for Wire Rope Specifications.
- Machine equipped with 20 ft 7 in crawlers, 36 in treads, 12 parts of boom hoist reeving and 39,000 lb crane counterweight.

Hoist Reeving for Main Boom Loads

No. of Parts of Line	1	2	3	4	5
Maximum Loads (lb)	17,000	34,000	51,000	68,000	85,000

No. of Parts of Line	6	7	8	10
Maximum Loads (lb)	102,000	119,000	136,000	170,000

Hoist Reeving for Upper Boom Point

No. of Parts of Line	1
Maximum Loads (lb)	17,000

Assembling the Counterweight
39,000 lb Crane counterweight (No. 1 - No. 3)
Without carbody weight

No. 2	No. 3
No. 1	
Counterweights	

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



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
40 ft Boom			
10.0	81.7	45.2	170,000 *
11.0	80.3	45.1	168,700 *
12.0	78.8	44.9	162,000
13.0	77.4	44.6	150,000
14.0	75.9	44.4	134,300
15.0	74.4	44.1	118,800
16.0	72.9	43.8	106,100
17.0	71.4	43.4	95,500
18.0	69.9	43.1	86,300
19.0	68.3	42.7	79,400
20.0	66.7	42.2	73,200
22.0	63.6	41.3	63,800
24.0	60.3	40.2	56,000
26.0	56.9	38.9	49,700
28.0	53.4	37.5	44,900
30.0	49.7	35.8	40,600
32.0	45.7	33.9	37,200
34.0	41.5	31.8	34,500
36.0	36.9	29.2	32,100
38.0	31.6	26.2	29,800
40.0	25.5	22.4	27,600
50 ft Boom			
12.0	81.1	55.0	156,300
13.0	79.9	54.9	139,400
14.0	78.8	54.7	126,700
15.0	77.6	54.4	115,100
16.0	76.4	54.2	105,000
17.0	75.2	53.9	95,500
18.0	74.0	53.6	86,300
19.0	72.8	53.3	79,400
20.0	71.6	53.0	73,200
22.0	69.2	52.2	63,600
24.0	66.7	51.4	55,800
26.0	64.2	50.5	49,500
28.0	61.6	49.4	44,700
30.0	58.9	48.2	40,400
32.0	56.2	46.9	37,000
34.0	53.3	45.5	34,300
36.0	50.4	43.8	31,900
38.0	47.3	42.0	29,600
40.0	44.1	40.0	27,400
45.0	34.9	33.8	23,400
50.0	22.7	24.4	20,300

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
60 ft Boom			
13.0	81.6	65.0	129,800
14.0	80.7	64.8	118,800
15.0	79.7	64.7	108,700
16.0	78.7	64.5	100,700
17.0	77.7	64.2	92,700
18.0	76.8	64.0	84,700
19.0	75.8	63.7	78,100
20.0	74.8	63.5	72,200
22.0	72.8	62.9	63,200
24.0	70.8	62.2	55,600
26.0	68.7	61.4	49,400
28.0	66.6	60.6	44,700
30.0	64.5	59.6	40,400
32.0	62.4	58.6	37,000
34.0	60.2	57.5	34,300
36.0	58.0	56.3	31,900
38.0	55.7	54.9	29,600
40.0	53.3	53.5	27,400
45.0	47.0	49.2	23,400
50.0	40.0	43.8	20,500
55.0	31.7	36.7	18,100
60.0	20.6	26.2	16,000
70 ft Boom			
15.0	81.2	74.8	102,500
16.0	80.3	74.6	95,300
17.0	79.5	74.5	88,800
18.0	78.7	74.2	82,900
19.0	77.8	74.0	76,700
20.0	77.0	73.8	71,100
22.0	75.3	73.3	62,700
24.0	73.6	72.7	55,500
26.0	71.9	72.1	49,400
28.0	70.1	71.4	44,700
30.0	68.4	70.6	40,400
32.0	66.6	69.7	37,000
34.0	64.8	68.8	34,300
36.0	63.0	67.8	31,900
38.0	61.1	66.7	29,600
40.0	59.2	65.5	27,400
45.0	54.3	62.2	23,400
50.0	49.0	58.2	20,300
55.0	43.3	53.3	17,900
60.0	36.9	47.2	15,900
65.0	29.3	39.4	14,300

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
80 ft Boom			
16.0	81.6	84.8	90,100
17.0	80.8	84.6	84,300
18.0	80.1	84.4	78,900
19.0	79.4	84.2	74,400
20.0	78.6	84.0	70,100
22.0	77.2	83.6	62,200
24.0	75.7	83.1	55,300
26.0	74.2	82.5	49,400
28.0	72.7	81.9	44,700
30.0	71.2	81.3	40,400
32.0	69.7	80.5	36,900
34.0	68.1	79.7	34,000
36.0	66.6	78.9	31,700
38.0	65.0	78.0	29,300
40.0	63.4	77.0	27,200
45.0	59.3	74.2	23,200
50.0	55.0	70.9	20,100
55.0	50.5	67.1	17,700
60.0	45.6	62.5	15,700
65.0	40.3	57.0	14,000
70.0	34.4	50.4	12,700
75.0	27.3	41.8	11,500



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
90 ft Boom			
17.0	81.9	94.7	80,000
18.0	81.2	94.6	75,300
19.0	80.6	94.4	71,300
20.0	79.9	94.2	67,500
22.0	78.6	93.8	61,000
24.0	77.3	93.4	54,900
26.0	76.0	92.9	49,200
28.0	74.7	92.4	44,400
30.0	73.4	91.8	40,200
32.0	72.0	91.1	36,800
34.0	70.7	90.5	34,000
36.0	69.3	89.7	31,600
38.0	68.0	88.9	29,200
40.0	66.6	88.1	27,000
45.0	63.0	85.7	23,100
50.0	59.4	82.9	20,100
55.0	55.6	79.6	17,600
60.0	51.6	75.9	15,500
65.0	47.4	71.6	13,800
70.0	42.9	66.5	12,600
75.0	37.9	60.5	11,400
80.0	32.3	53.3	10,300
85.0	25.7	44.2	9,500
100 ft Boom			
19.0	81.5	104.6	68,200
20.0	80.9	104.4	64,700
22.0	79.8	104.0	58,600
24.0	78.6	103.6	53,400
26.0	77.4	103.2	48,800
28.0	76.3	102.7	44,200
30.0	75.1	102.2	39,900
32.0	73.9	101.6	36,600
34.0	72.7	101.0	33,800
36.0	71.5	100.4	31,400
38.0	70.3	99.6	28,900
40.0	69.0	98.9	26,800
45.0	65.9	96.8	22,900
50.0	62.7	94.3	19,900
55.0	59.5	91.5	17,400

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
100 ft Boom			
60.0	56.1	88.3	15,300
65.0	52.5	84.7	13,600
70.0	48.8	80.5	12,400
75.0	44.8	75.8	11,200
80.0	40.6	70.3	10,100
85.0	35.9	63.8	9,300
90.0	30.6	56.1	8,600
95.0	24.3	46.3	7,900
110 ft Boom			
20.0	81.8	114.5	62,300
22.0	80.7	114.2	56,700
24.0	79.7	113.8	51,700
26.0	78.6	113.4	47,400
28.0	77.5	113.0	43,600
30.0	76.5	112.5	39,900
32.0	75.4	112.0	36,600
34.0	74.3	111.5	33,800
36.0	73.2	110.9	31,400
38.0	72.1	110.2	28,900
40.0	71.0	109.5	26,800
45.0	68.2	107.7	22,900
50.0	65.4	105.5	19,900
55.0	62.5	103.0	17,400
60.0	59.5	100.2	15,300
65.0	56.4	97.0	13,600
70.0	53.2	93.4	12,200
75.0	49.9	89.4	11,100
80.0	46.4	84.9	10,100
85.0	42.6	79.7	9,300
90.0	38.6	73.8	8,400
95.0	34.2	67.0	7,800
100.0	29.2	58.7	7,300
105.0	23.2	48.4	6,800
120 ft Boom			
22.0	81.5	124.3	54,400
24.0	80.5	124.0	49,800
26.0	79.6	123.6	45,700
28.0	78.6	123.2	42,300
30.0	77.6	122.8	39,200
32.0	76.6	122.3	36,200
34.0	75.6	121.8	33,600
36.0	74.7	121.3	31,100
38.0	73.7	120.7	28,700
40.0	72.7	120.1	26,600

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
120 ft Boom			
45.0	70.1	118.4	22,700
50.0	67.6	116.4	19,700
55.0	65.0	114.2	17,200
60.0	62.3	111.7	15,100
65.0	59.5	108.9	13,400
70.0	56.7	105.7	12,000
75.0	53.8	102.2	10,800
80.0	50.8	98.3	9,900
85.0	47.6	93.9	9,000
90.0	44.3	89.0	8,200
95.0	40.7	83.5	7,500
100.0	36.9	77.2	6,800
105.0	32.7	69.9	6,300
110.0	27.9	61.3	5,800
115.0	22.2	50.4	5,300
130 ft Boom			
24.0	81.3	134.1	48,000
26.0	80.4	133.8	44,300
28.0	79.5	133.4	41,100
30.0	78.6	133.0	38,100
32.0	77.7	132.6	35,600
34.0	76.8	132.1	33,200
36.0	75.9	131.6	30,900
38.0	74.9	131.1	28,600
40.0	74.0	130.5	26,600
45.0	71.7	129.0	22,500
50.0	69.4	127.2	19,500
55.0	67.0	125.2	16,900
60.0	64.6	122.9	14,800
65.0	62.1	120.3	13,200
70.0	59.6	117.5	11,800
75.0	57.0	114.4	10,600
80.0	54.3	110.9	9,700
85.0	51.5	107.1	8,800
90.0	48.6	102.9	8,000
95.0	45.6	98.2	7,200
100.0	42.4	93.0	6,600
105.0	39.0	87.1	6,100
110.0	35.4	80.5	5,600
115.0	31.3	72.8	5,200
120.0	26.7	63.7	4,800
125.0	21.2	52.3	4,400



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
140 ft Boom			
24.0	81.9	144.3	46,200
26.0	81.1	143.9	42,700
28.0	80.2	143.6	39,700
30.0	79.4	143.2	36,900
32.0	78.6	142.8	34,400
34.0	77.7	142.4	32,300
36.0	76.9	141.9	30,200
38.0	76.0	141.5	28,200
40.0	75.2	140.9	26,300
45.0	73.1	139.5	22,300
50.0	70.9	137.8	19,200
55.0	68.7	136.0	16,700
60.0	66.5	133.9	14,600
65.0	64.3	131.6	12,900
70.0	62.0	129.0	11,600
75.0	59.6	126.2	10,400
80.0	57.2	123.1	9,400
85.0	54.7	119.7	8,400
90.0	52.2	115.9	7,700
95.0	49.5	111.8	7,000
100.0	46.8	107.3	6,400
105.0	43.9	102.3	5,900
110.0	40.8	96.7	5,400
115.0	37.5	90.5	4,900
120.0	34.0	83.5	4,500
125.0	30.1	75.5	4,100
130.0	25.7	66.0	3,800
135.0	20.5	54.1	3,300

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
150 ft Boom			
26.0	81.7	154.1	41,300
28.0	80.9	153.7	38,500
30.0	80.1	153.4	35,800
32.0	79.3	153.0	33,500
34.0	78.6	152.6	31,500
36.0	77.8	152.2	29,700
38.0	77.0	151.7	27,900
40.0	76.2	151.3	26,100
45.0	74.2	149.9	22,100
50.0	72.2	148.4	19,000
55.0	70.2	146.7	16,500
60.0	68.2	144.7	14,400
65.0	66.1	142.6	12,700
70.0	64.0	140.3	11,500
75.0	61.8	137.7	10,300
80.0	59.6	134.8	9,200
85.0	57.4	131.7	8,400
90.0	55.1	128.4	7,500
95.0	52.7	124.7	6,900
100.0	50.3	120.7	6,400
105.0	47.7	116.3	5,800
110.0	45.1	111.5	5,200
115.0	42.3	106.2	4,700
120.0	39.4	100.4	4,200
125.0	36.2	93.9	3,900
130.0	32.8	86.5	3,600
135.0	29.1	78.1	3,200

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
160 ft Boom			
28.0	81.5	163.9	37,300
30.0	80.7	163.6	34,700
32.0	80.0	163.2	32,400
34.0	79.3	162.8	30,400
36.0	78.6	162.4	28,700
38.0	77.8	162.0	26,900
40.0	77.1	161.5	25,300
45.0	75.2	160.3	21,800
50.0	73.4	158.9	18,800
55.0	71.5	157.3	16,300
60.0	69.6	155.5	14,200
65.0	67.7	153.5	12,500
70.0	65.7	151.3	11,100
75.0	63.7	148.9	10,000
80.0	61.7	146.3	9,000
85.0	59.7	143.5	8,200
90.0	57.6	140.4	7,300
95.0	55.4	137.1	6,600
100.0	53.2	133.4	6,000
105.0	50.9	129.5	5,500
110.0	48.6	125.2	5,000
115.0	46.1	120.6	4,400
120.0	43.6	115.5	3,900
125.0	40.9	110.0	3,500
130.0	38.1	103.9	3,100



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
170 ft Boom			
28.0	82.0	174.0	35,700
30.0	81.3	173.7	33,600
32.0	80.6	173.4	31,500
34.0	79.9	173.0	29,600
36.0	79.2	172.6	27,900
38.0	78.6	172.2	26,200
40.0	77.9	171.8	24,700
45.0	76.1	170.6	21,500
50.0	74.4	169.3	18,600
55.0	72.6	167.8	16,100
60.0	70.9	166.1	14,000
65.0	69.1	164.3	12,300
70.0	67.2	162.2	11,000
75.0	65.4	160.0	9,900
80.0	63.5	157.6	8,800
85.0	61.6	155.0	7,900
90.0	59.7	152.2	7,100
95.0	57.7	149.1	6,400
100.0	55.7	145.8	5,700
105.0	53.6	142.2	5,100
110.0	51.5	138.3	4,600
115.0	49.3	134.2	4,100
120.0	47.0	129.7	3,700
125.0	44.7	124.8	3,300

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
180 ft Boom			
30.0	81.8	183.8	31,800
32.0	81.1	183.5	30,100
34.0	80.5	183.2	28,500
36.0	79.8	182.8	26,900
38.0	79.2	182.4	25,300
40.0	78.5	182.0	23,800
45.0	76.9	180.9	20,800
50.0	75.3	179.7	18,300
55.0	73.6	178.3	16,100
60.0	72.0	176.7	14,000
65.0	70.3	175.0	12,300
70.0	68.6	173.1	11,000
75.0	66.8	171.0	9,900
80.0	65.1	168.7	8,800
85.0	63.3	166.3	7,900
90.0	61.5	163.7	7,100
95.0	59.7	160.8	6,400
100.0	57.8	157.8	5,700
105.0	55.9	154.5	5,100
110.0	54.0	150.9	4,600
115.0	52.0	147.1	4,100
120.0	49.9	143.0	3,600
125.0	47.8	138.6	3,200

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lb)
190 ft Boom			
32.0	81.6	193.6	26,900
34.0	81.0	193.3	25,800
36.0	80.4	193.0	24,800
38.0	79.8	192.6	23,800
40.0	79.2	192.2	22,800
45.0	77.6	191.2	20,300
50.0	76.1	190.0	17,900
55.0	74.5	188.7	15,800
60.0	72.9	187.2	14,000
65.0	71.3	185.6	12,300
70.0	69.7	183.8	10,900
75.0	68.1	181.8	9,700
80.0	66.5	179.7	8,700
85.0	64.8	177.4	7,700
90.0	63.2	175.0	7,000
95.0	61.4	172.3	6,400
100.0	59.7	169.5	5,700
105.0	57.9	166.4	5,100
110.0	56.1	163.2	4,500
115.0	54.3	159.7	4,000
120.0	52.4	155.9	3,500
125.0	50.5	151.9	3,100