



Liftcrane Boom Capacities

27,560 LB. Crane Counterweight
Extended Position Crawlers
360 Degree Rating

**Meets
ANSI B30.5
Requirements**



8500 SERIES 2

LIFTING CAPACITIES:

- 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).
- 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.
- Attempting to lift more than rated loads may cause machine to tip or collapse. Do not tip machine to determine capacity.
- Do not attempt to lift where no radius on load chart is listed as crane may tip or collapse.
- Weight of hooks, hook blocks, slings and other lifting devices beneath boom and jib 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.
- 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.
- Least stable position is over the side.
- Boom point elevation is vertical distance from ground level to centerline of boom point shaft.
- Auxiliary sheave (upper boom point) capacity for liftcrane service with single part line is 17,000 lbs. In all cases, auxiliary sheave (upper boom point) capacities cannot exceed those listed for Liftcrane Boom capacity reduced by 320 lbs.
- When lifting over auxiliary sheave (upper point), rated loads for the boom must be reduced as shown below.

Jib length	Aux.	30 ft.	40 ft.	50 ft.	60 ft.
Deduct (lbs)	320	Not Applicable			

- 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.
- Machine travel with load (pick and carry).
 - 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, jib and rigging.

- Jib installation is prohibited.

OPERATING CONDITION:

- The machine must be reeved and set-up as stated in the Operators 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 operators manual for operating guidelines.

Maximum Boom Lengths Lifted Unassisted	
Boom Length Over End Of Crawlers	
140 ft. (a)	
130 ft.	
Load block, hook and weight ball on ground at start.	
(a) Auxiliary sheave (upper point) cannot be attached on 140 ft. boom.	

- Front and rear load hoist drum wire rope: 7/8 inch, 6 x 25, FI, IWRC C/O, Minimum breaking strength: 79,586 lbs. Front Drum: 869 feet, Rear Drum: 673 feet.
- Boom hoist wire rope: 492 feet, 5/8 inch, 6 x 31, WS, IWRC O/O, Minimum breaking strength: 41,234 lbs.
- Machine equipped with 19 ft. 8 in. crawlers, 36 in. treads, 12 parts of boom hoist reeving. 27,560 lbs. crane counterweight.

Hoist Reeving for Main Boom Loads

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

No. of Parts of Line	6	7	8	9	10
Maximum Loads (lbs)	102,000	119,000	136,000	151,200	170,000

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 (lbs)
40 Ft. Boom			
10	81.7	45.2	169,700
11	80.3	45.1	164,400
12	78.8	44.9	149,100
13	77.4	44.6	133,500
14	75.9	44.4	114,100
15	74.4	44.1	99,800
16	72.9	43.8	88,400
17	71.4	43.4	79,300
18	69.9	43.1	72,000
19	68.3	42.7	65,600
20	66.7	42.2	60,600
22	63.6	41.3	52,000
24	60.3	40.2	45,600
26	56.9	38.9	40,500
28	53.4	37.5	36,500
30	49.7	35.8	33,000
32	45.7	33.9	30,200
34	41.5	31.8	27,700
36	36.9	29.2	25,700
38	31.6	26.2	24,000
50 Ft. Boom			
12	81.1	55.0	148,900
13	79.9	54.9	133,500
14	78.8	54.7	114,100
15	77.6	54.4	99,600
16	76.4	54.2	88,400
17	75.2	53.9	79,300
18	74.0	53.6	71,800
19	72.8	53.3	65,600
20	71.6	53.0	60,400
22	69.2	52.2	52,000
24	66.7	51.4	45,400
26	64.2	50.5	40,300
28	61.6	49.4	36,300
30	58.9	48.2	32,800
32	56.2	46.9	29,900
34	53.3	45.5	27,500
36	50.4	43.8	25,500
38	47.3	42.0	23,800
40	44.1	40.0	22,000
45	34.9	33.8	18,800

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
60 Ft. Boom			
13	81.6	65.0	133,500
14	80.7	64.8	114,100
15	79.7	64.7	99,600
16	78.7	64.5	88,100
17	77.7	64.2	79,100
18	76.8	64.0	71,600
19	75.8	63.7	65,400
20	74.8	63.5	60,100
22	72.8	62.9	51,800
24	70.8	62.2	45,100
26	68.7	61.4	40,100
28	66.6	60.6	35,900
30	64.5	59.6	32,600
32	62.4	58.6	29,700
34	60.2	57.5	27,300
36	58.0	56.3	25,100
38	55.7	54.9	23,300
40	53.3	53.5	21,800
45	47.0	49.2	18,550
50	40.0	43.8	16,000
70 Ft. Boom			
14	82.0	75.0	113,900
15	81.2	74.8	99,600
16	80.3	74.6	88,100
17	79.5	74.5	79,100
18	78.7	74.2	71,600
19	77.8	74.0	65,400
20	77.0	73.8	60,100
22	75.3	73.3	51,500
24	73.6	72.7	45,100
26	71.9	72.1	40,100
28	70.1	71.4	35,900
30	68.4	70.6	32,400
32	66.6	69.7	29,500
34	64.8	68.8	27,100
36	63.0	67.8	25,100
38	61.1	66.7	23,100
40	59.2	65.5	21,600
45	54.3	62.2	18,350
50	49.0	58.2	15,800
55	43.3	53.3	13,800
60	36.9	47.2	12,300

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
80 Ft. Boom			
16	81.6	84.8	88,100
17	80.8	84.6	78,900
18	80.1	84.4	71,400
19	79.4	84.2	65,200
20	78.6	84.0	59,900
22	77.2	83.6	51,500
24	75.7	83.1	44,900
26	74.2	82.5	39,900
28	72.7	81.9	35,700
30	71.2	81.3	32,400
32	69.7	80.5	29,500
34	68.1	79.7	26,800
36	66.6	78.9	24,900
38	65.0	78.0	22,900
40	63.4	77.0	21,300
45	59.3	74.2	18,150
50	55.0	70.9	15,600
55	50.5	67.1	13,600
60	45.6	62.5	12,100
65	40.3	57.0	10,800
70	34.4	50.4	9,700
90 Ft. Boom			
17	81.9	94.7	59,900
18	81.2	94.6	51,300
19	80.6	94.4	44,900
20	79.9	94.2	39,900
22	78.6	93.8	35,700
24	77.3	93.4	32,100
26	76.0	92.9	29,300
28	74.7	92.4	26,800
30	73.4	91.8	24,600
32	72.0	91.1	22,900
34	70.7	90.5	21,300
36	69.3	89.7	17,950
38	68.0	88.9	15,400
40	66.6	88.1	13,400
45	63.0	85.7	11,900
50	59.4	82.9	10,500
55	55.6	79.6	9,400
60	51.6	75.9	8,500
65	47.4	71.6	7,700



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100 Ft. Boom			
19	81.5	104.6	65,200
20	80.9	104.4	59,900
22	79.8	104.0	51,300
24	78.6	103.6	44,700
26	77.4	103.2	39,600
28	76.3	102.7	35,400
30	75.1	102.2	32,100
32	73.9	101.6	29,100
34	72.7	101.0	26,600
36	71.5	100.4	24,600
38	70.3	99.6	22,700
40	69.0	98.9	21,100
45	65.9	96.8	17,650
50	62.7	94.3	15,200
55	59.5	91.5	13,200
60	56.1	88.3	11,600
65	52.5	84.7	10,300
70	48.8	80.5	9,200
75	44.8	75.8	8,300
80	40.6	70.3	7,400
85	35.9	63.8	6,800
90	30.6	56.1	6,100
110 Ft. Boom			
20	81.8	114.5	59,700
22	80.7	114.2	51,100
24	79.7	113.8	44,700
26	78.6	113.4	39,600
28	77.5	113.0	35,400
30	76.5	112.5	31,900
32	75.4	112.0	29,100
34	74.3	111.5	26,600
36	73.2	110.9	24,400
38	72.1	110.2	22,700
40	71.0	109.5	20,900
45	68.2	107.7	17,650
50	65.4	105.5	15,200
55	62.5	103.0	13,200
60	59.5	100.2	11,400
65	56.4	97.0	10,100
70	53.2	93.4	9,000
75	49.9	89.4	8,100
80	46.4	84.9	7,200
85	42.6	79.7	6,600
90	38.6	73.8	5,900
95	34.2	67.0	5,500

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
120 Ft. Boom			
22	81.5	124.3	51,100
24	80.5	124.0	44,700
26	79.6	123.6	39,400
28	78.6	123.2	35,200
30	77.6	122.8	31,900
32	76.6	122.3	28,800
34	75.6	121.8	26,400
36	74.7	121.3	24,400
38	73.7	120.7	22,400
40	72.7	120.1	20,900
45	70.1	118.4	17,450
50	67.6	116.4	14,900
55	65.0	114.2	13,000
60	62.3	111.7	11,400
65	59.5	108.9	9,900
70	56.7	105.7	8,800
75	53.8	102.2	7,900
80	50.8	98.3	7,000
85	47.6	93.9	6,300
90	44.3	89.0	5,700
95	40.7	83.5	5,200
100	36.9	77.2	4,800
105	32.7	69.9	4,400
130 Ft. Boom			
24	81.3	134.1	44,500
26	80.4	133.8	39,200
28	79.5	133.4	35,000
30	78.6	133.0	31,700
32	77.7	132.6	28,600
34	76.8	132.1	26,200
36	75.9	131.6	24,200
38	74.9	131.1	22,200
40	74.0	130.5	20,700
45	71.7	129.0	17,250
50	69.4	127.2	14,700
55	67.0	125.2	12,700
60	64.6	122.9	11,000
65	62.1	120.3	9,700
70	59.6	117.5	8,500

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
130 Ft. Boom			
75	57.0	114.4	7,700
80	54.3	110.9	6,800
85	51.5	107.1	6,100
90	48.6	102.9	5,500
95	45.6	98.2	5,000
100	42.4	93.0	4,400
105	39.0	87.1	4,100
110	35.4	80.5	3,700
115	31.3	72.8	3,300
140 Ft. Boom			
24	81.9	144.3	44,500
26	81.1	143.9	39,200
28	80.2	143.6	35,000
30	79.4	143.2	31,500
32	78.6	142.8	28,600
34	77.7	142.4	26,200
36	76.9	141.9	24,000
38	76.0	141.5	22,200
40	75.2	140.9	20,500
45	73.1	139.5	17,250
50	70.9	137.8	14,700
55	68.7	136.0	12,500
60	66.5	133.9	11,000
65	64.3	131.6	9,700
70	62.0	129.0	8,500
75	59.6	126.2	7,400
80	57.2	123.1	6,800
85	54.7	119.7	5,900
90	52.2	115.9	5,200
95	49.5	111.8	4,800
100	46.8	107.3	4,400
105	43.9	102.3	3,900
110	40.8	96.7	3,500
115	37.5	90.5	3,000
120	34.0	83.5	2,600



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150 Ft. Boom			
26	81.7	154.1	39,200
28	80.9	153.7	35,000
30	80.1	153.4	31,500
32	79.3	153.0	28,600
34	78.6	152.6	26,000
36	77.8	152.2	24,000
38	77.0	151.7	22,000
40	76.2	151.3	20,500
45	74.2	149.9	17,050
50	72.2	148.4	14,500
55	70.2	146.7	12,500
60	68.2	144.7	10,800
65	66.1	142.6	9,400
70	64.0	140.3	8,300
75	61.8	137.7	7,400
80	59.6	134.8	6,600
85	57.4	131.7	5,900
90	55.1	128.4	5,200
95	52.7	124.7	4,600
100	50.3	120.7	4,100
105	47.7	116.3	3,700
110	45.1	111.5	3,300
115	42.3	106.2	2,800

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
160 Ft. Boom			
28	81.5	163.9	35,000
30	80.7	163.6	31,500
32	80.0	163.2	28,600
34	79.3	162.8	26,000
36	78.6	162.4	24,000
38	77.8	162.0	22,000
40	77.1	161.5	20,500
45	75.2	160.3	17,050
50	73.4	158.9	14,500
55	71.5	157.3	12,300
60	69.6	155.5	10,800
65	67.7	153.5	9,400
70	65.7	151.3	8,300
75	63.7	148.9	7,200
80	61.7	146.3	6,300
85	59.7	143.5	5,700
90	57.6	140.4	5,000
95	55.4	137.1	4,600
100	53.2	133.4	3,900
105	50.9	129.5	3,500
110	48.6	125.2	3,000
115	46.1	120.6	2,600