



# Liftcrane Boom Capacities

**27,560 LB. Crane Counterweight**  
**Crawler Retracted**  
**Travel with Load Not Permitted**  
**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 boom point with jib or auxiliary sheave, 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.
- Travel with load (pick and carry) is not permitted.
- 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.

<b>Maximum Boom Lengths Lifted Unassisted</b>
Over End of Crawlers
140 ft.
Load block, hook and weight ball on ground at start.

- 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 LB. crane counterweight.

### Hoist Reeving for Main Boom Loads

No. of Parts of Line	1	2	3
Maximum Loads (lbs)	17,000	34,000	51,600

**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)
<b>40 Ft. Boom</b>			
34	41.5	31.8	20,000
36	36.9	29.2	18,700
38	31.6	26.2	17,400
40	25.5	22.4	16,300
<b>50 Ft. Boom</b>			
30	58.9	48.2	23,300
32	56.2	46.9	21,300
34	53.3	45.5	19,800
36	50.4	43.8	18,200
38	47.3	42.0	16,900
40	44.1	40.0	15,800
45	34.9	33.8	13,600
50	22.7	24.4	11,900
<b>60 Ft. Boom</b>			
28	66.6	60.6	25,300
30	64.5	59.6	22,900
32	62.4	58.6	21,100
34	60.2	57.5	19,400
36	58.0	56.3	18,000
38	55.7	54.9	16,700
40	53.3	53.5	15,600
45	47.0	49.2	13,200
50	40.0	43.8	11,400
55	31.7	36.7	10,100
60	20.6	26.2	9,000
<b>70 Ft. Boom</b>			
26	71.9	72.1	27,700
28	70.1	71.4	25,100
30	68.4	70.6	22,900
32	66.6	69.7	20,900
34	64.8	68.8	19,100
36	63.0	67.8	17,800
38	61.1	66.7	16,500
40	59.2	65.5	15,400
45	54.3	62.2	13,000
50	49.0	58.2	11,200
55	43.3	53.3	9,900
60	36.9	47.2	8,800
65	29.3	39.4	7,700

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>80 Ft. Boom</b>			
24	75.7	83.1	30,800
26	74.2	82.5	27,500
28	72.7	81.9	24,900
30	71.2	81.3	22,700
32	69.7	80.5	20,700
34	68.1	79.7	18,900
36	66.6	78.9	17,600
38	65.0	78.0	16,300
40	63.4	77.0	15,200
45	59.3	74.2	12,700
50	55.0	70.9	11,000
55	50.5	67.1	9,400
60	45.6	62.5	8,300
65	40.3	57.0	7,400
70	34.4	50.4	6,600
75	27.3	41.8	5,900
<b>90 Ft. Boom</b>			
22	78.6	93.8	34,600
24	77.3	93.4	30,600
26	76.0	92.9	27,500
28	74.7	92.4	24,600
30	73.4	91.8	22,400
32	72.0	91.1	20,500
34	70.7	90.5	18,900
36	69.3	89.7	17,400
38	68.0	88.9	16,000
40	66.6	88.1	14,900
45	63.0	85.7	12,500
50	59.4	82.9	10,800
55	55.6	79.6	9,400
60	51.6	75.9	8,100
65	47.4	71.6	7,200
70	42.9	66.5	6,300
75	37.9	60.5	5,700
80	32.3	53.3	5,200
85	25.7	44.2	4,600

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>100 Ft. Boom</b>			
19	81.5	104.6	42,500
20	80.9	104.4	39,600
22	79.8	104.0	34,600
24	78.6	103.6	30,600
26	77.4	103.2	27,300
28	76.3	102.7	24,600
30	75.1	102.2	22,200
32	73.9	101.6	20,200
34	72.7	101.0	18,700
36	71.5	100.4	17,100
38	70.3	99.6	15,800
40	69.0	98.9	14,700
45	65.9	96.8	12,500
50	62.7	94.3	10,500
55	59.5	91.5	9,200
60	56.1	88.3	7,900
65	52.5	84.7	7,000
70	48.8	80.5	6,100
75	44.8	75.8	5,500
80	40.6	70.3	4,800
85	35.9	63.8	4,400
90	30.6	56.1	3,900
95	24.3	46.3	3,500



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<b>110 Ft. Boom</b>			
20	81.8	114.5	39,400
22	80.7	114.2	34,300
24	79.7	113.8	30,400
26	78.6	113.4	27,100
28	77.5	113.0	24,400
30	76.5	112.5	22,200
32	75.4	112.0	20,200
34	74.3	111.5	18,500
36	73.2	110.9	17,100
38	72.1	110.2	15,800
40	71.0	109.5	14,700
45	68.2	107.7	12,300
50	65.4	105.5	10,500
55	62.5	103.0	9,000
60	59.5	100.2	7,900
65	56.4	97.0	6,800
70	53.2	93.4	5,900
75	49.9	89.4	5,200
80	46.4	84.9	4,600
85	42.6	79.7	4,100
90	38.6	73.8	3,700
95	34.2	67.0	3,300
100	29.2	58.7	2,800
105	23.2	48.4	2,600
<b>120 Ft. Boom</b>			
22	81.5	124.3	34,300
24	80.5	124.0	30,200
26	79.6	123.6	27,100
28	78.6	123.2	24,200
30	77.6	122.8	22,000
32	76.6	122.3	20,000
34	75.6	121.8	18,500
36	74.7	121.3	16,900
38	73.7	120.7	15,600
40	72.7	120.1	14,500
45	70.1	118.4	12,100
50	67.6	116.4	10,300
55	65.0	114.2	8,800
60	62.3	111.7	7,700
65	59.5	108.9	6,600

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>120 Ft. Boom</b>			
70	56.7	105.7	5,700
75	53.8	102.2	5,000
80	50.8	98.3	4,400
85	47.6	93.9	3,900
90	44.3	89.0	3,300
95	40.7	83.5	2,800
100	36.9	77.2	2,600
<b>130 Ft. Boom</b>			
24	81.3	134.1	29,900
26	80.4	133.8	26,800
28	79.5	133.4	24,000
30	78.6	133.0	21,800
32	77.7	132.6	19,800
34	76.8	132.1	18,200
36	75.9	131.6	16,700
38	74.9	131.1	15,400
40	74.0	130.5	14,300
45	71.7	129.0	11,900
50	69.4	127.2	10,100
55	67.0	125.2	8,500
60	64.6	122.9	7,400
65	62.1	120.3	6,300
70	59.6	117.5	5,500
75	57.0	114.4	4,800
80	54.3	110.9	4,100
85	51.5	107.1	3,500
90	48.6	102.9	3,000
95	45.6	98.2	2,600

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
<b>140 Ft. Boom</b>			
24	81.9	144.3	29,900
26	81.1	143.9	26,600
28	80.2	143.6	24,000
30	79.4	143.2	21,800
32	78.6	142.8	19,800
34	77.7	142.4	18,000
36	76.9	141.9	16,500
38	76.0	141.5	15,400
40	75.2	140.9	14,100
45	73.1	139.5	11,900
50	70.9	137.8	9,900
55	68.7	136.0	8,500
60	66.5	133.9	7,200
65	64.3	131.6	6,100
70	62.0	129.0	5,500
75	59.6	126.2	4,600
80	57.2	123.1	3,900
85	54.7	119.7	3,300
90	52.2	115.9	2,800
95	49.5	111.8	2,400