



Liftcrane Boom Capacities

54,900 LB. Crane Counterweight
14,700 LB. Carbody Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ANSI B30.5
Requirements



8500 SERIES 3

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 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.
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. 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.

10. When lifting over boom point with jib or 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	2,400	3,200	4,200	5,200

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, jib and rigging.
13. Consult jib chart for liftcrane jib capacities.



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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.
- The total load that can be lifted over a jib is limited by the rated jib loads.
- Machine equipped with 19 ft. 8 in. crawlers, 36 in. treads, 12 parts of boom hoist reeving. 54,900 lbs. crane counterweight and two 7,350 lbs. carbody counterweights.

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	153,000	170,000

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

Maximum Boom and Jib Lengths Lifted Unassisted			
Over End of Blocked Crawlers		Over End of Crawlers	
Boom Length	Jib Length	Boom Length	Jib Length
200 ft. (a)	—	200 ft. (a)	—
190 ft.	—	190 ft.	—
180 ft.	60 ft.	170 ft.	60 ft.
Load block, hook and weight ball on ground at start. (a) Auxiliary sheave (upper point) cannot be attached on 200 ft. boom. Jibs can only be mounted on 80 ft. to 180 ft. booms.			

- 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.



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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	170,000 *
11	80.3	45.1	170,000 *
12	78.8	44.9	166,600 *
13	77.4	44.6	154,600 *
14	75.9	44.4	144,200 *
15	74.4	44.1	135,100 *
16	72.9	43.8	127,100 *
17	71.4	43.4	119,900 *
18	69.9	43.1	113,400 *
19	68.3	42.7	105,820
20	66.7	42.2	97,500
22	63.6	41.3	84,190
24	60.3	40.2	74,000
26	56.9	38.9	65,980
28	53.4	37.5	59,480
30	49.7	35.8	54,100
32	45.7	33.9	49,580
34	41.5	31.8	45,740
36	36.9	29.2	42,460
38	31.6	26.2	39,590
40	25.5	22.4	34,830
50 Ft. Boom			
12	81.1	55.0	166,400 *
13	79.9	54.9	154,400 *
14	78.8	54.7	144,000 *
15	77.6	54.4	134,900 *
16	76.4	54.2	126,900 *
17	75.2	53.9	119,700 *
18	74.0	53.6	113,200 *
19	72.8	53.3	105,660
20	71.6	53.0	97,350
22	69.2	52.2	84,010
24	66.7	51.4	73,810
26	64.2	50.5	65,760
28	61.6	49.4	59,230
30	58.9	48.2	53,850
32	56.2	46.9	49,310
34	53.3	45.5	45,480
36	50.4	43.8	42,150
38	47.3	42.0	39,280
40	44.1	40.0	36,750
45	34.9	33.8	31,590
50	22.7	24.4	26,890

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
60 Ft. Boom			
13	81.6	65.0	154,200 *
14	80.7	64.8	143,800 *
15	79.7	64.7	134,700 *
16	78.7	64.5	126,700 *
17	77.7	64.2	119,500 *
18	76.8	64.0	113,000 *
19	75.8	63.7	105,460
20	74.8	63.5	97,130
22	72.8	62.9	83,790
24	70.8	62.2	73,560
26	68.7	61.4	65,490
28	66.6	60.6	58,970
30	64.5	59.6	53,570
32	62.4	58.6	49,030
34	60.2	57.5	45,170
36	58.0	56.3	41,840
38	55.7	54.9	38,950
40	53.3	53.5	36,410
45	47.0	49.2	31,230
50	40.0	43.8	27,290
55	31.7	36.7	24,200
60	20.6	26.2	21,600
70 Ft. Boom			
14	82.0	75.0	143,600 *
15	81.2	74.8	134,500 *
16	80.3	74.6	126,500 *
17	79.5	74.5	119,300 *
18	78.7	74.2	112,800 *
19	77.8	74.0	105,400
20	77.0	73.8	97,060
22	75.3	73.3	83,700
24	73.6	72.7	73,470
26	71.9	72.1	65,380
28	70.1	71.4	58,840
30	68.4	70.6	53,430
32	66.6	69.7	48,890
34	64.8	68.8	45,030
36	63.0	67.8	41,680
38	61.1	66.7	38,800
40	59.2	65.5	36,240
45	54.3	62.2	31,040
50	49.0	58.2	27,070
55	43.3	53.3	23,960
60	36.9	47.2	21,450
65	29.3	39.4	19,420

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
80 Ft. Boom			
16	81.6	84.8	126,300 *
17	80.8	84.6	119,100 *
18	80.1	84.4	112,600 *
19	79.4	84.2	105,290
20	78.6	84.0	96,930
22	77.2	83.6	83,550
24	75.7	83.1	73,320
26	74.2	82.5	65,230
28	72.7	81.9	58,680
30	71.2	81.3	53,260
32	69.7	80.5	48,690
34	68.1	79.7	44,840
36	66.6	78.9	41,490
38	65.0	78.0	38,580
40	63.4	77.0	36,020
45	59.3	74.2	30,820
50	55.0	70.9	26,820
55	50.5	67.1	23,670
60	45.6	62.5	21,140
65	40.3	57.0	19,060
70	34.4	50.4	17,350
75	27.3	41.8	15,890
90 Ft. Boom			
17	81.9	94.7	118,820 *
18	81.2	94.6	112,400 *
19	80.6	94.4	105,220
20	79.9	94.2	96,870
22	78.6	93.8	83,480
24	77.3	93.4	73,230
26	76.0	92.9	65,140
28	74.7	92.4	58,570
30	73.4	91.8	53,150
32	72.0	91.1	48,580
34	70.7	90.5	44,700
36	69.3	89.7	41,380
38	68.0	88.9	38,440
40	66.6	88.1	35,890
45	63.0	85.7	30,660
50	59.4	82.9	26,670
55	55.6	79.6	23,520
60	51.6	75.9	20,960
65	47.4	71.6	18,870
70	42.9	66.5	17,100
75	37.9	60.5	15,630
80	32.3	53.3	14,370
85	25.7	44.2	13,310



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
100 Ft. Boom			
19	81.5	104.6	101,850 *
20	80.9	104.4	96,800
22	79.8	104.0	83,400
24	78.6	103.6	73,120
26	77.4	103.2	65,010
28	76.3	102.7	58,440
30	75.1	102.2	53,020
32	73.9	101.6	48,450
34	72.7	101.0	44,550
36	71.5	100.4	41,200
38	70.3	99.6	38,290
40	69.0	98.9	35,730
45	65.9	96.8	30,480
50	62.7	94.3	26,470
55	59.5	91.5	23,320
60	56.1	88.3	20,740
65	52.5	84.7	18,620
70	48.8	80.5	16,860
75	44.8	75.8	15,360
80	40.6	70.3	14,080
85	35.9	63.8	12,980
90	30.6	56.1	12,010
95	24.3	46.3	11,190
110 Ft. Boom			
20	81.8	114.5	92,590 *
22	80.7	114.2	83,260
24	79.7	113.8	73,010
26	78.6	113.4	64,900
28	77.5	113.0	58,330
30	76.5	112.5	52,880
32	75.4	112.0	48,320
34	74.3	111.5	44,440
36	73.2	110.9	41,090
38	72.1	110.2	38,160
40	71.0	109.5	35,600
45	68.2	107.7	30,350
50	65.4	105.5	26,340
55	62.5	103.0	23,170
60	59.5	100.2	20,610

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
110 Ft. Boom			
65	56.4	97.0	18,490
70	53.2	93.4	16,710
75	49.9	89.4	15,210
80	46.4	84.9	13,910
85	42.6	79.7	12,800
90	38.6	73.8	11,830
95	34.2	67.0	10,970
100	29.2	58.7	10,250
105	23.2	48.4	9,610
120 Ft. Boom			
22	81.5	124.3	80,680 *
24	80.5	124.0	72,950
26	79.6	123.6	64,810
28	78.6	123.2	58,240
30	77.6	122.8	52,800
32	76.6	122.3	48,230
34	75.6	121.8	44,330
36	74.7	121.3	40,980
38	73.7	120.7	38,050
40	72.7	120.1	35,470
45	70.1	118.4	30,220
50	67.6	116.4	26,210
55	65.0	114.2	23,010
60	62.3	111.7	20,450
65	59.5	108.9	18,320
70	56.7	105.7	16,530
75	53.8	102.2	15,010
80	50.8	98.3	13,710
85	47.6	93.9	12,580
90	44.3	89.0	11,590
95	40.7	83.5	10,730
100	36.9	77.2	9,960
105	32.7	69.9	9,280
110	27.9	61.3	8,680
115	22.2	50.4	8,170

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
130 Ft. Boom			
24	81.3	134.1	71,200 *
26	80.4	133.8	64,610
28	79.5	133.4	58,020
30	78.6	133.0	52,570
32	77.7	132.6	48,010
34	76.8	132.1	44,110
36	75.9	131.6	40,760
38	74.9	131.1	37,830
40	74.0	130.5	35,250
45	71.7	129.0	30,000
50	69.4	127.2	25,970
55	67.0	125.2	22,790
60	64.6	122.9	20,210
65	62.1	120.3	18,070
70	59.6	117.5	16,290
75	57.0	114.4	14,770
80	54.3	110.9	13,470
85	51.5	107.1	12,320
90	48.6	102.9	11,330
95	45.6	98.2	10,440
100	42.4	93.0	9,670
105	39.0	87.1	8,990
110	35.4	80.5	8,390
115	31.3	72.8	7,840
120	26.7	63.7	7,360
125	21.2	52.3	6,940



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
140 Ft. Boom			
24	81.9	144.3	61,720 *
26	81.1	143.9	60,840 *
28	80.2	143.6	57,980
30	79.4	143.2	52,530
32	78.6	142.8	47,950
34	77.7	142.4	44,040
36	76.9	141.9	40,670
38	76.0	141.5	37,740
40	75.2	140.9	35,160
45	73.1	139.5	29,910
50	70.9	137.8	25,880
55	68.7	136.0	22,680
60	66.5	133.9	20,100
65	64.3	131.6	17,960
70	62.0	129.0	16,150
75	59.6	126.2	14,630
80	57.2	123.1	13,310
85	54.7	119.7	12,160
90	52.2	115.9	11,170
95	49.5	111.8	10,290
100	46.8	107.3	9,500
105	43.9	102.3	8,790
110	40.8	96.7	8,170
115	37.5	90.5	7,620
120	34.0	83.5	7,120
125	30.1	75.5	6,650
130	25.7	66.0	6,260
135	20.5	54.1	5,900
150 Ft. Boom			
26	81.7	154.1	52,680 *
28	80.9	153.7	51,800 *
30	80.1	153.4	51,140
32	79.3	153.0	47,810
34	78.6	152.6	43,890
36	77.8	152.2	40,540
38	77.0	151.7	37,610
40	76.2	151.3	35,030
45	74.2	149.9	29,760
50	72.2	148.4	25,720
55	70.2	146.7	22,530
60	68.2	144.7	19,950
65	66.1	142.6	17,810
70	64.0	140.3	16,000
75	61.8	137.7	14,480
80	59.6	134.8	13,160

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
150 Ft. Boom			
85	57.4	131.7	12,010
90	55.1	128.4	11,000
95	52.7	124.7	10,110
100	50.3	120.7	9,320
105	47.7	116.3	8,640
110	45.1	111.5	8,000
115	42.3	106.2	7,420
120	39.4	100.4	6,920
125	36.2	93.9	6,450
130	32.8	86.5	6,040
135	29.1	78.1	5,660
140	24.8	68.2	5,330
160 Ft. Boom			
28	81.5	163.9	44,090 *
30	80.7	163.6	43,430 *
32	80.0	163.2	42,760 *
34	79.3	162.8	42,100 *
36	78.6	162.4	40,520
38	77.8	162.0	37,560
40	77.1	161.5	34,980
45	75.2	160.3	29,710
50	73.4	158.9	25,680
55	71.5	157.3	22,480
60	69.6	155.5	19,880
65	67.7	153.5	17,720
70	65.7	151.3	15,930
75	63.7	148.9	14,390
80	61.7	146.3	13,070
85	59.7	143.5	11,920
90	57.6	140.4	10,910
95	55.4	137.1	10,000
100	53.2	133.4	9,210
105	50.9	129.5	8,500
110	48.6	125.2	7,870
115	46.1	120.6	7,290
120	43.6	115.5	6,760
125	40.9	110.0	6,280
130	38.1	103.9	5,860
135	35.0	97.0	5,440
140	31.8	89.4	5,070
145	28.1	80.6	4,710
150	24.0	70.3	4,380

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
170 Ft. Boom			
28	82.0	174.0	38,800 *
30	81.3	173.7	38,130 *
32	80.6	173.4	37,470 *
34	79.9	173.0	37,030 *
36	79.2	172.6	36,370 *
38	78.6	172.2	35,710 *
40	77.9	171.8	34,780
45	76.1	170.6	29,510
50	74.4	169.3	25,460
55	72.6	167.8	22,260
60	70.9	166.1	19,660
65	69.1	164.3	17,520
70	67.2	162.2	15,710
75	65.4	160.0	14,170
80	63.5	157.6	12,850
85	61.6	155.0	11,680
90	59.7	152.2	10,670
95	57.7	149.1	9,780
100	55.7	145.8	8,990
105	53.6	142.2	8,260
110	51.5	138.3	7,620
115	49.3	134.2	7,050
120	47.0	129.7	6,520
125	44.7	124.8	6,040
130	42.2	119.4	5,570
135	39.6	113.6	5,150
140	36.9	107.2	4,760
145	34.0	100.1	4,380
150	30.8	92.2	4,050
155	27.3	83.1	3,760
160	23.3	72.4	3,500



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Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
180 Ft. Boom			
30	81.8	183.8	33,730 *
32	81.1	183.5	33,060 *
34	80.5	183.2	32,620 *
36	79.8	182.8	31,960 *
38	79.2	182.4	31,520 *
40	78.5	182.0	31,080 *
45	76.9	180.9	29,250
50	75.3	179.7	25,220
55	73.6	178.3	22,000
60	72.0	176.7	19,400
65	70.3	175.0	17,260
70	68.6	173.1	15,450
75	66.8	171.0	13,910
80	65.1	168.7	12,560
85	63.3	166.3	11,410
90	61.5	163.7	10,400
95	59.7	160.8	9,500
100	57.8	157.8	8,700
105	55.9	154.5	8,000
110	54.0	150.9	7,340
115	52.0	147.1	6,760
120	49.9	143.0	6,230
125	47.8	138.6	5,700
130	45.6	133.9	5,220
135	43.3	128.8	4,780
140	40.9	123.2	4,380
145	38.4	117.1	4,030
150	35.8	110.5	3,680
155	33.0	103.1	3,370
160	29.9	94.9	3,100
165	26.5	85.4	2,840
170	22.6	74.4	2,620

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
190 Ft. Boom			
32	81.6	193.6	29,540 *
34	81.0	193.3	28,880 *
36	80.4	193.0	28,430 *
38	79.8	192.6	27,990 *
40	79.2	192.2	27,550 *
45	77.6	191.2	26,450 *
50	76.1	190.0	25,300
55	74.5	188.7	22,110
60	72.9	187.2	19,510
65	71.3	185.6	17,350
70	69.7	183.8	15,540
75	68.1	181.8	13,990
80	66.5	179.7	12,650
85	64.8	177.4	11,500
90	63.2	175.0	10,470
95	61.4	172.3	9,560
100	59.7	169.5	8,770
105	57.9	166.4	8,040
110	56.1	163.2	7,400
115	54.3	159.7	6,810
120	52.4	155.9	6,280
125	50.5	151.9	5,750
130	48.5	147.6	5,260
135	46.4	143.0	4,800
140	44.3	138.0	4,400
145	42.1	132.7	4,010
150	39.8	126.9	3,680
155	37.4	120.6	3,350
160	34.8	113.6	3,040
165	32.0	106.0	2,770
170	29.1	97.5	2,510

Load Radius (ft)	Boom Angle (deg)	Boom Point Elev. (ft)	360° Rated Load (lbs)
200 Ft. Boom			
34	81.4	203.4	25,790 *
36	80.9	203.1	25,350 *
38	80.3	202.8	24,910 *
40	79.7	202.4	24,470 *
45	78.2	201.4	23,360 *
50	76.8	200.3	22,480 *
55	75.3	199.0	21,380 *
60	73.8	197.6	19,310
65	72.3	196.1	17,150
70	70.8	194.4	15,320
75	69.3	192.6	13,770
80	67.7	190.6	12,430
85	66.2	188.4	11,260
90	64.6	186.1	10,250
95	63.0	183.6	9,340
100	61.4	181.0	8,530
105	59.7	178.1	7,820
110	58.1	175.1	7,160
115	56.3	171.9	6,560
120	54.6	168.4	5,970
125	52.8	164.7	5,440
130	51.0	160.7	4,960
135	49.1	156.5	4,510
140	47.2	152.0	4,100
145	45.2	147.2	3,700
150	43.1	142.0	3,350
155	41.0	136.4	3,040
160	38.7	130.4	2,730