



Liftcrane Boom Capacities

**31 300 kg Crane Counterweight
Extended Position Crawlers
360 Degree Rating**

Meets
ASME B30.5
Requirements



11000-1

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 10 800 kg. In all cases, upper boom point capacities cannot exceed those listed for Liftcrane Boom capacity reduced by 200 kg.
10. 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.
11. 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.

Maximum Boom Lengths Lifted Unassisted	
Over End of Blocked Crawlers	Over End of Crawlers
Boom Length	Boom Length
61 m (a)	57,9 m
Load block, hook and weight ball on ground at start. (a) Upper boom point cannot be attached on 61 m boom.	

Hoist Reeving for Main Boom Loads

No. of Parts of Line	1	2	3
Maximum Loads (kg)	11 400	22 800	34 200

No. of Parts of Line	4	5	6
Maximum Loads (kg)	45 700	57 100	68 500

Hoist Reeving for Upper Boom Point Loads

No. of Parts of Line	1
Maximum Loads (kg)	10 800

Assembling the Counterweight
31 300 counterweight (No. 1 - No. 5)
Without carbody weight

No. 4	No. 5
No. 2	No. 3
No. 1	
<u>Counterweights</u>	

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

- See Operator Manual Section 6 for Wire Rope Specifications.
- Machine equipped with 6 280 mm crawlers, 900 mm treads, 12 parts of boom hoist reeving and 31 300 kg crane counterweight.



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Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
24,4 m Boom			
14,0	58,6	22,5	16 000
16,0	52,9	21,1	13 500
18,0	46,7	19,3	11 500
20,0	39,7	17,2	10 000
22,0	31,6	14,3	8 900
22,8	27,7	12,9	8 400
27,4 m Boom			
14,0	62,4	26,0	15 800
16,0	57,6	24,8	13 400
18,0	52,5	23,4	11 500
20,0	46,9	21,6	9 900
22,0	40,9	19,5	8 800
24,0	33,9	16,9	7 800
25,9	25,8	13,5	7 100
30,5 m Boom			
12,0	69,5	30,2	19 500
14,0	65,4	29,4	15 700
16,0	61,2	28,4	13 300
18,0	56,8	27,1	11 300
20,0	52,1	25,7	9 800
22,0	47,2	24,0	8 600
24,0	41,7	21,9	7 700
26,0	35,7	19,3	6 800
28,0	28,5	16,1	6 200
28,9	24,7	14,3	6 000
33,5 m Boom			
12,0	71,4	33,5	19 500
14,0	67,8	32,7	15 700
16,0	64,0	31,8	13 300
18,0	60,1	30,7	11 300
20,0	56,1	29,5	9 800
22,0	51,8	28,0	8 600
24,0	47,3	26,3	7 700
26,0	42,4	24,2	6 800
28,0	37,1	21,8	6 200
30,0	30,9	18,8	5 600
32,0	23,2	14,8	5 200

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
36,6 m Boom			
10,0	76,3	37,2	24 900
12,0	73,0	36,7	19 300
14,0	69,7	36,0	15 600
16,0	66,3	35,2	13 200
18,0	62,8	34,2	11 200
20,0	59,3	33,1	9 600
22,0	55,5	31,8	8 500
24,0	51,6	30,3	7 500
26,0	47,5	28,6	6 700
28,0	43,0	26,5	6 000
30,0	38,2	24,2	5 500
32,0	32,7	21,3	5 000
34,0	26,3	17,7	4 600
35,0	22,4	15,5	4 400
39,6 m Boom			
10,0	77,4	40,4	24 700
12,0	74,4	39,9	19 200
14,0	71,3	39,2	15 500
16,0	68,3	38,5	13 100
18,0	65,1	37,6	11 100
20,0	61,9	36,6	9 500
22,0	58,5	35,4	8 300
24,0	55,0	34,1	7 300
26,0	51,4	32,6	6 500
28,0	47,6	30,9	5 900
30,0	43,5	28,9	5 300
32,0	39,1	26,6	4 900
34,0	34,2	23,8	4 400
36,0	28,6	20,5	4 000
38,0	21,7	16,2	3 700
38,1	21,3	15,9	3 700

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
42,7 m Boom			
8,0	81,0	43,9	29 400
9,0	79,6	43,7	26 700
10,0	78,3	43,5	24 000
12,0	75,5	43,0	19 100
14,0	72,7	42,4	15 300
16,0	69,9	41,8	12 900
18,0	67,0	40,9	10 900
20,0	64,0	40,0	9 400
22,0	61,0	39,0	8 300
24,0	57,9	37,8	7 300
26,0	54,6	36,4	6 400
28,0	51,2	34,9	5 800
30,0	47,7	33,2	5 200
32,0	43,9	31,2	4 800
34,0	39,9	28,9	4 300
36,0	35,4	26,3	3 900
38,0	30,5	23,2	3 600
40,0	24,6	19,3	3 300
41,1	20,7	16,6	3 100
45,7 m Boom			
7,9	81,7	47,0	25 600
8,0	81,6	47,0	25 400
9,0	80,3	46,8	23 600
10,0	79,1	46,6	22 100
12,0	76,5	46,2	18 900
14,0	73,9	45,6	15 300
16,0	71,3	45,0	12 900
18,0	68,6	44,2	10 900
20,0	65,9	43,4	9 400
22,0	63,1	42,4	8 200
24,0	60,2	41,3	7 200
26,0	57,3	40,1	6 300
28,0	54,3	38,7	5 700
30,0	51,1	37,2	5 100
32,0	47,8	35,5	4 600
34,0	44,3	33,5	4 200
36,0	40,5	31,3	3 800
38,0	36,5	28,8	3 500
40,0	32,0	25,8	3 200
42,6	25,1	21,0	2 900



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Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
48,8 m Boom			
8,5	81,7	50,0	19 100
9,0	81,1	49,9	18 500
10,0	79,9	49,7	17 400
12,0	77,5	49,3	15 400
14,0	75,1	48,8	13 800
16,0	72,6	48,2	12 400
18,0	70,1	47,5	10 800
20,0	67,6	46,7	9 400
22,0	65,0	45,8	8 200
24,0	62,4	44,8	7 200
26,0	59,6	43,7	6 300
28,0	56,9	42,4	5 700
30,0	54,0	41,0	5 100
32,0	51,0	39,5	4 600
34,0	47,9	37,8	4 200
36,0	44,6	35,8	3 800
38,0	41,1	33,7	3 500
40,0	37,3	31,2	3 100
44,0	28,5	25,0	2 600
45,7	23,9	21,5	2 400
51,8 m Boom			
9,1	81,6	53,0	16 400
10,0	80,5	52,8	15 500
12,0	78,3	52,4	13 700
14,0	76,0	52,0	12 200
16,0	73,7	51,4	11 100
18,0	71,4	50,7	10 100
20,0	69,0	50,0	9 200
22,0	66,6	49,2	8 100
24,0	64,1	48,2	7 200
26,0	61,6	47,2	6 300
28,0	59,1	46,1	5 700
30,0	56,4	44,8	5 000
32,0	53,7	43,4	4 600
34,0	50,9	41,8	4 100
36,0	47,9	40,1	3 700
38,0	44,8	38,1	3 400
40,0	41,6	36,0	3 000
44,0	34,3	30,8	2 500
48,0	25,2	23,8	2 000
48,7	23,3	22,2	1 900

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
54,9 m Boom			
9,1	82,0	56,0	14 300
10,0	81,1	55,9	13 500
12,0	78,9	55,5	11 800
14,0	76,8	55,1	10 500
16,0	74,6	54,6	9 600
18,0	72,4	54,0	8 700
20,0	70,2	53,3	7 900
22,0	68,0	52,5	7 300
24,0	65,7	51,6	6 700
26,0	63,3	50,7	6 100
28,0	61,0	49,6	5 500
30,0	58,5	48,4	4 900
32,0	56,0	47,1	4 400
34,0	53,4	45,7	4 000
36,0	50,8	44,1	3 600
38,0	48,0	42,4	3 300
40,0	45,1	40,5	2 900
44,0	38,7	36,0	2 400
48,0	31,4	30,2	1 900
50,2	26,6	26,2	1 700
57,9 m Boom			
9,7	81,9	59,0	12 100
10,0	81,5	59,0	11 900
12,0	79,5	58,6	10 300
14,0	77,5	58,2	9 200
16,0	75,5	57,7	8 300
18,0	73,4	57,2	7 500
20,0	71,3	56,5	6 700
22,0	69,2	55,8	6 200
24,0	67,0	55,0	5 700
26,0	64,9	54,1	5 200
28,0	62,6	53,1	4 800
30,0	60,4	52,0	4 400
32,0	58,0	50,7	4 100
34,0	55,7	49,4	3 800
36,0	53,2	48,0	3 500
38,0	50,7	46,4	3 200
40,0	48,0	44,7	2 800
44,0	42,4	40,7	2 300
48,0	36,1	35,7	1 800
50,2	32,2	32,5	1 600

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
61,0 m Boom			
10,3	81,7	62,0	9 000
12,0	80,1	61,7	8 100
14,0	78,1	61,3	7 200
16,0	76,2	60,9	6 500
18,0	74,2	60,3	5 800
20,0	72,3	59,7	5 300
22,0	70,3	59,0	4 800
24,0	68,3	58,3	4 400
26,0	66,2	57,4	4 000
28,0	64,1	56,5	3 700
30,0	62,0	55,4	3 400
32,0	59,8	54,3	3 200
34,0	57,6	53,1	2 900
36,0	55,3	51,7	2 600
38,0	53,0	50,3	2 400
40,0	50,6	48,7	2 200
44,0	45,5	45,1	1 800
47,2	41,1	41,7	1 500