



Liftcrane Boom Capacities

31 300 kg Crane Counterweight
14 400 kg Carbody 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 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. 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. When lifting over boom point with jib or upper boom point, rated loads for the boom must be reduced as shown below:

Jib length (m)	Upper Boom Point	9,1 m	12,2 m	15,2 m	18,3 m
Deduct (kg)	200	1 200	1 700	2 400	3 100

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. To lift the maximum capacity of 80 000 kg (7-part line) and 100 000 kg (8-part line), the Upper Boom Point must be used.

Manitowoc Cranes

Manitowoc, Wisconsin 54220 U.S.A.



Liftcrane Boom Capacities

31 300 kg Crane Counterweight
 14 400 kg Carbody Counterweight
 Extended Position Crawlers
 360 Degree Rating

Meets
 ASME B30.5
 Requirements

11000-1

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.
- The total load that can be lifted over a jib is limited by the rated jib loads.

- 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. 31 300 kg crane counterweight and 14 400 kg carbody counterweight.

Maximum Boom and Jib Lengths Lifted Unassisted			
Over End of Blocked Crawlers		Over End of Crawlers	
Boom Length	Jib Length	Boom Length	Jib Length
61,0 m (a)	—	61,0 m (a)	—
57,9 m	18,3 m	57,9 m	—
54,9 m	18,3 m	51,8 m	18,3 m

Load block, hook and weight ball on ground at start.
 (a) Upper boom point cannot be attached on 61,0 m boom.
 Jibs can only be mounted on 24,4 m to 57,9 m booms.

Hoist Reeving for Main Boom Loads

No. of Parts of Line	1	2	3	4
Maximum Loads (kg)	11 400	22 800	34 200	45 600

No. of Parts of Line	5	6	7	8
Maximum Loads (kg)	57 000	68 400	80 000	100 000

Hoist Reeving for Upper Boom Point

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

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



Liftcrane Boom Capacities

31 300 kg Crane Counterweight
14 400 kg Carbody Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



11000-1

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
12,2 m Boom			
3,3	80,7	13,8	100 000 *
3,5	79,8	13,7	98 300 *
4,0	77,3	13,6	90 300 *
4,5	74,9	13,5	81 000 *
5,0	72,5	13,3	73 300 *
5,5	70,0	13,1	66 800 *
6,0	67,4	12,9	61 300 *
7,0	62,2	12,4	49 300
8,0	56,6	11,8	40 100
9,0	50,7	11,1	34 000
10,0	44,2	10,1	29 400
12,0	27,7	7,2	21 600 *
12,1	26,7	7,0	20 800 *
15,2 m Boom			
3,6	81,4	16,8	96 700 *
4,0	79,9	16,7	90 200 *
4,5	78,0	16,6	80 900 *
5,0	76,1	16,5	73 200 *
5,5	74,1	16,4	66 700 *
6,0	72,1	16,2	61 100 *
7,0	68,1	15,8	49 100
8,0	64,0	15,4	40 000
9,0	59,7	14,8	33 900
10,0	55,2	14,1	29 400
12,0	45,2	12,4	23 100
14,0	33,1	9,9	18 800
15,2	23,2	7,6	15 900
18,3 m Boom			
3,9	81,9	19,8	90 900 *
4,0	81,6	19,8	90 100 *
4,5	80,0	19,7	80 700 *
5,0	78,4	19,6	73 000 *
5,5	76,8	19,5	66 400 *
6,0	75,2	19,4	61 000 *
7,0	71,9	19,1	49 000
8,0	68,6	18,7	39 900
9,0	65,1	18,3	33 800
10,0	61,6	17,7	29 200
12,0	54,2	16,5	22 900
14,0	45,9	14,7	18 700
16,0	36,2	12,4	15 900
18,0	23,2	8,8	13 300 *
18,2	21,5	8,3	12 900 *

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
21,3 m Boom			
4,5	81,5	22,8	68 400 *
5,0	80,1	22,7	68 200 *
5,5	78,7	22,6	66 400 *
6,0	77,4	22,5	61 000 *
7,0	74,6	22,3	49 200
8,0	71,8	22,0	40 100
9,0	68,9	21,6	33 900
10,0	66,0	21,2	29 400
12,0	59,9	20,1	23 100
14,0	53,4	18,8	18 900
16,0	46,3	17,0	16 000
18,0	38,3	14,8	13 700
19,8	29,4	12,0	12 100
24,4 m Boom			
4,8	81,8	25,9	68 400 *
5,0	81,3	25,8	68 100 *
5,5	80,2	25,7	66 300 *
6,0	79,0	25,7	60 800 *
7,0	76,6	25,4	49 100
8,0	74,1	25,2	39 900
9,0	71,6	24,8	33 800
10,0	69,1	24,5	29 200
12,0	64,0	23,6	22 900
14,0	58,6	22,5	18 700
16,0	52,9	21,1	15 800
18,0	46,7	19,3	13 500
20,0	39,7	17,2	11 800
22,0	31,6	14,3	10 500
22,8	27,7	12,9	10 000
27,4 m Boom			
5,1	82,0	28,9	57 000 *
5,5	81,3	28,8	57 000 *
6,0	80,2	28,8	56 500 *
7,0	78,1	28,6	48 400 *
8,0	75,9	28,3	39 900
9,0	73,8	28,0	33 800
10,0	71,6	27,7	29 200
12,0	67,1	26,9	22 900
14,0	62,4	26,0	18 700
16,0	57,6	24,8	15 700
18,0	52,5	23,4	13 400
20,0	46,9	21,6	11 700
22,0	40,9	19,5	10 400
24,0	33,9	16,9	9 300
25,9	25,8	13,5	8 400

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
30,5 m Boom			
5,7	81,8	31,9	56 900 *
6,0	81,2	31,8	56 300 *
7,0	79,3	31,7	48 300 *
8,0	77,4	31,5	39 800
9,0	75,4	31,2	33 600
10,0	73,5	30,9	29 100
12,0	69,5	30,2	22 700
14,0	65,4	29,4	18 500
16,0	61,2	28,4	15 600
18,0	56,8	27,1	13 300
20,0	52,1	25,7	11 600
22,0	47,2	24,0	10 200
24,0	41,7	21,9	9 000
26,0	35,7	19,3	8 100
28,0	28,5	16,1	7 400
28,9	24,7	14,3	7 100
33,5 m Boom			
6,0	82,0	34,9	45 700 *
7,0	80,3	34,8	44 700 *
8,0	78,5	34,6	39 600 *
9,0	76,8	34,3	33 600
10,0	75,0	34,1	29 100
12,0	71,4	33,5	22 700
14,0	67,8	32,7	18 500
16,0	64,0	31,8	15 600
18,0	60,1	30,7	13 300
20,0	56,1	29,5	11 600
22,0	51,8	28,0	10 200
24,0	47,3	26,3	9 000
26,0	42,4	24,2	8 100
28,0	37,1	21,8	7 400
30,0	30,9	18,8	6 700
32,0	23,2	14,8	6 200



Liftcrane Boom Capacities

31 300 kg Crane Counterweight
14 400 kg Carbody Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
 Requirements

11000-1

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
36,6 m Boom			
6,7	81,6	37,9	44 700 *
7,0	81,1	37,9	43 700 *
8,0	79,5	37,7	39 400 *
9,0	77,9	37,5	33 500
10,0	76,3	37,2	29 000
12,0	73,0	36,7	22 600
14,0	69,7	36,0	18 400
16,0	66,3	35,2	15 400
18,0	62,8	34,2	13 100
20,0	59,3	33,1	11 300
22,0	55,5	31,8	10 100
24,0	51,6	30,3	9 000
26,0	47,5	28,6	7 900
28,0	43,0	26,5	7 200
30,0	38,2	24,2	6 500
32,0	32,7	21,3	6 000
34,0	26,3	17,7	5 600
35,0	22,4	15,5	5 300
39,6 m Boom			
7,3	81,3	40,9	38 600 *
8,0	80,3	40,8	37 700 *
9,0	78,8	40,6	33 200 *
10,0	77,4	40,4	28 900
12,0	74,4	39,9	22 500
14,0	71,3	39,2	18 300
16,0	68,3	38,5	15 300
18,0	65,1	37,6	13 000
20,0	61,9	36,6	11 300
22,0	58,5	35,4	9 900
24,0	55,0	34,1	8 800
26,0	51,4	32,6	7 800
28,0	47,6	30,9	7 100
30,0	43,5	28,9	6 400
32,0	39,1	26,6	5 800
34,0	34,2	23,8	5 300
36,0	28,6	20,5	5 000
38,0	21,7	16,2	4 600
38,1	21,3	15,9	4 600

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
42,7 m Boom			
7,3	82,0	44,0	33 000 *
8,0	81,0	43,9	32 500 *
9,0	79,6	43,7	31 400 *
10,0	78,3	43,5	28 500 *
12,0	75,5	43,0	22 400
14,0	72,7	42,4	18 200
16,0	69,9	41,8	15 200
18,0	67,0	40,9	12 900
20,0	64,0	40,0	11 200
22,0	61,0	39,0	9 800
24,0	57,9	37,8	8 600
26,0	54,6	36,4	7 700
28,0	51,2	34,9	6 900
30,0	47,7	33,2	6 300
32,0	43,9	31,2	5 700
34,0	39,9	28,9	5 200
36,0	35,4	26,3	4 800
38,0	30,5	23,2	4 400
40,0	24,6	19,3	4 100
41,1	20,7	16,6	4 000
45,7 m Boom			
7,9	81,7	47,0	28 200 *
8,0	81,6	47,0	28 100 *
9,0	80,3	46,8	27 400 *
10,0	79,1	46,6	26 500 *
12,0	76,5	46,2	22 200 *
14,0	73,9	45,6	18 100
16,0	71,3	45,0	15 100
18,0	68,6	44,2	12 800
20,0	65,9	43,4	11 100
22,0	63,1	42,4	9 700
24,0	60,2	41,3	8 500
26,0	57,3	40,1	7 600
28,0	54,3	38,7	6 900
30,0	51,1	37,2	6 200
32,0	47,8	35,5	5 600
34,0	44,3	33,5	5 200
36,0	40,5	31,3	4 700
38,0	36,5	28,8	4 300
40,0	32,0	25,8	3 900
42,6	25,1	21,0	3 600

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



Liftcrane Boom Capacities

31 300 kg Crane Counterweight
14 400 kg Carbody Counterweight
Extended Position Crawlers
360 Degree Rating

Meets
ASME B30.5
Requirements



11000-1

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
54,9 m Boom			
9,1	82,0	56,0	17 800 *
10,0	81,1	55,9	17 400 *
12,0	78,9	55,5	16 500 *
14,0	76,8	55,1	15 600 *
16,0	74,6	54,6	14 500 *
18,0	72,4	54,0	12 700 *
20,0	70,2	53,3	10 900
22,0	68,0	52,5	9 500
24,0	65,7	51,6	8 400
26,0	63,3	50,7	7 400
28,0	61,0	49,6	6 600
30,0	58,5	48,4	6 000
32,0	56,0	47,1	5 400
34,0	53,4	45,7	4 900
36,0	50,8	44,1	4 400
38,0	48,0	42,4	4 100
40,0	45,1	40,5	3 700
44,0	38,7	36,0	3 100
48,0	31,4	30,2	2 600
50,2	26,6	26,2	2 300

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
57,9 m Boom			
9,7	81,9	59,0	15 600 *
10,0	81,5	59,0	15 400 *
12,0	79,5	58,6	14 600 *
14,0	77,5	58,2	13 800 *
16,0	75,5	57,7	13 000 *
18,0	73,4	57,2	12 000 *
20,0	71,3	56,5	10 700 *
22,0	69,2	55,8	9 500
24,0	67,0	55,0	8 300
26,0	64,9	54,1	7 400
28,0	62,6	53,1	6 600
30,0	60,4	52,0	5 900
32,0	58,0	50,7	5 300
34,0	55,7	49,4	4 800
36,0	53,2	48,0	4 400
38,0	50,7	46,4	4 000
40,0	48,0	44,7	3 600
44,0	42,4	40,7	3 000
48,0	36,1	35,7	2 500
50,2	32,2	32,5	2 100

Load Radius (m)	Boom Angle (deg)	Boom Point Elev. (m)	360° Rated Load (kg)
61,0 m Boom			
10,3	81,7	62,0	13 700 *
12,0	80,1	61,7	13 000 *
14,0	78,1	61,3	12 300 *
16,0	76,2	60,9	11 600 *
18,0	74,2	60,3	10 600 *
20,0	72,3	59,7	9 600 *
22,0	70,3	59,0	8 700 *
24,0	68,3	58,3	7 900 *
26,0	66,2	57,4	7 100 *
28,0	64,1	56,5	6 400
30,0	62,0	55,4	5 700
32,0	59,8	54,3	5 200
34,0	57,6	53,1	4 700
36,0	55,3	51,7	4 200
38,0	53,0	50,3	3 800
40,0	50,6	48,7	3 400
44,0	45,5	45,1	2 600 *
47,2	41,1	41,7	2 100 *

THIS PAGE INTENTIONALLY LEFT BLANK