

# Liftcrane Boom Capacities

**Boom No. 222 With Open Throat Top**  
**24 180 kg Counterweight**  
**360 Degree Rating**

Meets  
ANSI B30.5  
Requirements

222  
222EX

**LIFTING CAPACITIES:** Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 75% of a static tipping load. Capacities based on structural competence are denoted by an asterisk (\*). Retracted crawler capacities are not shown for boom positions which, without load, provide less than required ANSI B30.5 backward stability.

Upper boom point capacity for liftcrane service with single part whip line is 9 070 kg. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of jib, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

**OPERATING CONDITIONS:** Machine to operate in a level position on a firm uniformly supporting surface with gantry up. Refer to boom rigging No. 193744 or No. 910557 and Wire Rope Specification chart No. 9071-A. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to operators manual for operating guidelines.

**MACHINE TRAVEL:** Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle

range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart No. 9143-A.

**OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.

**BOOM POINT ELEVATION:** Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

**MACHINE EQUIPMENT:** Machine equipped with 6 807 mm extendible crawlers, 914 mm treads, 4 724 mm retractable gantry, 10 part boom hoist reeving, two 32 mm boom pendants, 1st counterweight = 12 930 kg and 2nd counterweight = 11 250 kg.

<b>Deduct From Capacities When Jib Is Attached</b>	
Jib Length	Jib No. 10
9.1m	770 kg
12.2m	950 kg
15.2m	1 170 kg
18.3m	1 400 kg

<b>Maximum Boom and Jib Lengths Lifted Unassisted</b>					
Over End of Blocked Crawlers		Over Side of Extended Crawlers		Over Side of Retracted Crawlers	
Boom Length	Jib No. 10	Boom Length	Jib No. 10	Boom Length	Jib No. 10
61.0m	---	61.0m	---	51.8m	---
57.9m	18.3m	57.9m	---	48.8m	---
		54.9m	12.2m	45.7m	15.2m
		51.8m	18.3m	42.7m	18.3m
Load block, hook and weight ball on ground at start.					

Consult jib chart for jib capacities. Upper boom point cannot be used when jib is attached.



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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>12.2m (40 Ft.) Boom</b>				
3.0	80.7	13.7		90 700 *
3.5	78.5	13.6		87 400 *
4.0	76.1	13.5		76 800 *
4.5	73.7	13.3		68 200 *
5.0	71.2	13.2		59 900
5.5	68.7	13.0		50 400
6.0	66.1	12.8		43 600
7.0	60.9	12.3		34 300
8.0	55.3	11.6		28 200
9.0	49.3	10.8		23 900
10.0	42.7	9.9		20 700
11.0	35.1	8.6		18 200
12.0	25.7	6.8		16 200
<b>15.2m (50 Ft.) Boom</b>				
3.4	81.4	16.7		89 400 *
3.5	80.8	16.7		86 600 *
4.0	78.9	16.6		76 800 *
4.5	77.0	16.5		68 200 *
5.0	75.1	16.4		59 900
5.5	73.1	16.2		50 400
6.0	71.1	16.0		43 600
7.0	67.1	15.7		34 300
8.0	62.9	15.2		28 100
9.0	58.6	14.6		23 800
10.0	54.1	13.9		20 600
11.0	49.2	13.1		18 100
12.0	44.0	12.2		16 200
14.0	31.6	9.6		13 200
<b>18.3m (60 Ft.) Boom</b>				
3.7	81.9	19.8		78 700 *
4.0	80.8	19.7		76 500 *
4.5	79.2	19.6		66 000 *
5.0	77.6	19.5		58 300 *
5.5	76.0	19.4		50 300
6.0	74.4	19.2		43 500
7.0	71.1	18.9		34 200
8.0	67.7	18.5		28 100
9.0	64.3	18.1		23 800
10.0	60.7	17.6		20 600
11.0	57.1	17.0		18 000
12.0	53.2	16.2		16 100
14.0	44.9	14.5	9 600	13 100
16.0	35.1	12.1	8 000	11 000
18.0	21.7	8.3	6 900	9 400

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>21.3m (70 Ft.) Boom</b>				
4.3	81.4	22.7		67 900 *
4.5	80.8	22.7		64 000 *
5.0	79.4	22.6		56 100 *
5.5	78.0	22.5		50 300
6.0	76.6	22.4		43 500
7.0	73.9	22.1		34 100
8.0	71.0	21.8		28 000
9.0	68.2	21.4		23 700
10.0	65.2	21.0		20 500
11.0	62.2	20.5		18 000
12.0	59.2	19.9		16 000
14.0	52.6	18.6	9 500	13 100
16.0	45.5	16.8	8 000	11 000
18.0	37.3	14.5	6 800	9 400
20.0	27.2	11.3	6 000	8 100
<b>24.4m (80 Ft.) Boom</b>				
4.6	81.8	25.8		60 500 *
5.0	80.7	25.7		54 100 *
5.5	79.5	25.6		48 500 *
6.0	78.3	25.5		43 400
7.0	75.9	25.3		34 100
8.0	73.5	25.0		28 000
9.0	71.0	24.7		23 700
10.0	68.5	24.3		20 400
11.0	66.0	23.9	12 800	17 900
12.0	63.4	23.4	11 500	15 900
14.0	57.9	22.3	9 400	13 000
16.0	52.2	20.9	7 900	10 800
18.0	45.9	19.1	6 700	9 300
20.0	38.9	16.9	5 900	8 100
22.0	30.6	14.0	5 100	7 100
24.0	19.4	9.7	4 500	6 300

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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>27.4m (90 Ft.) Boom</b>				
5.2	81.4	28.8		50 600 *
5.5	80.7	28.7		47 000 *
6.0	79.7	28.6		42 900 *
7.0	77.5	28.4		34 000
8.0	75.4	28.2		27 900
9.0	73.2	27.9		23 600
10.0	71.0	27.6		20 300
11.0	68.8	27.2	12 700	17 800
12.0	66.5	26.8	11 400	15 900
14.0	61.9	25.8	9 300	12 900
16.0	57.0	24.6	7 800	10 800
18.0	51.8	23.2	6 600	9 200
20.0	46.3	21.4	5 800	8 000
22.0	40.2	19.3	5 000	7 000
24.0	33.1	16.6	4 400	6 200
26.0	24.4	12.9	4 000	5 500
<b>30.5m (100 Ft.) Boom</b>				
5.5	81.7	31.8		45 800 *
6.0	80.7	31.7		41 700 *
7.0	78.8	31.5		34 100
8.0	76.9	31.3		27 800
9.0	74.9	31.1		23 500
10.0	73.0	30.8	14 400	20 300
11.0	71.0	30.4	12 700	17 800
12.0	69.0	30.1	11 300	15 800
14.0	64.9	29.2	9 300	12 800
16.0	60.7	28.2	7 700	10 700
18.0	56.2	26.9	6 600	9 100
20.0	51.6	25.5	5 700	8 000
22.0	46.6	23.7	5 000	7 000
24.0	41.1	21.6	4 400	6 200
26.0	35.0	19.1	3 900	5 500
28.0	27.7	15.7	3 500	4 900
30.0	17.9	10.9	3 100	4 500

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>33.5m (110 Ft.) Boom</b>				
5.8	81.9	34.8		42 400 *
6.0	81.6	34.8		40 600 *
7.0	79.8	34.6		33 800
8.0	78.1	34.4		27 700
9.0	76.3	34.2		23 400
10.0	74.6	34.0	14 300	20 200
11.0	72.8	33.7	12 700	17 800
12.0	71.0	33.3	11 200	15 700
14.0	67.3	32.6	9 200	12 700
16.0	63.5	31.6	7 600	10 600
18.0	59.7	30.5	6 500	9 000
20.0	55.6	29.3	5 600	7 900
22.0	51.3	27.8	4 900	6 900
24.0	46.8	26.0	4 300	6 100
26.0	41.9	24.0	3 800	5 400
28.0	36.5	21.5	3 400	4 800
30.0	30.2	18.4	3 000	4 400
32.0	22.4	14.4	2 700	3 900
<b>36.6m (120 Ft.) Boom</b>				
6.7	81.1	37.8		35 100 *
7.0	80.7	37.7		33 400 *
8.0	79.1	37.6	19 100	27 700
9.0	77.5	37.3	16 400	23 400
10.0	75.9	37.1	14 200	20 100
11.0	74.3	36.8	12 600	17 700
12.0	72.6	36.5	11 200	15 600
14.0	69.3	35.8	9 000	12 600
16.0	65.9	35.0	7 500	10 500
18.0	62.4	34.0	6 400	9 000
20.0	58.8	32.9	5 500	7 800
22.0	55.1	31.6	4 800	6 800
24.0	51.1	30.1	4 200	6 000
26.0	47.0	28.3	3 700	5 300
28.0	42.5	26.3	3 200	4 700
30.0	37.6	23.9	2 900	4 300
32.0	32.1	21.0	2 600	3 900
34.0	25.6	17.4	2 300	3 500
36.0	16.9	12.2	2 100	3 100



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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>39.6m (130 Ft.) Boom</b>				
6.7	81.8	40.9		34 300 *
7.0	81.4	40.8		32 600 *
8.0	79.9	40.7	19 000	27 600
9.0	78.5	40.5	16 200	23 200
10.0	77.0	40.2	14 100	20 000
11.0	75.5	40.0	12 400	17 600
12.0	74.0	39.7	11 100	15 600
14.0	71.0	39.1	8 900	12 600
16.0	67.9	38.3	7 400	10 400
18.0	64.7	37.4	6 300	8 900
20.0	61.5	36.4	5 500	7 700
22.0	58.1	35.2	4 700	6 700
24.0	54.6	33.9	4 100	5 900
26.0	51.0	32.4	3 600	5 200
28.0	47.1	30.6	3 100	4 600
30.0	43.0	28.6	2 800	4 200
32.0	38.6	26.3	2 500	3 800
34.0	33.7	23.5	2 200	3 400
36.0	28.0	20.2	2 000	3 100
38.0	21.0	15.8	1 700	2 800
<b>42.7m (140 Ft.) Boom</b>				
7.3	81.6	43.9	21 400	29 600 *
8.0	80.7	43.8	18 900	27 100
9.0	79.3	43.6	16 200	23 300
10.0	77.9	43.4	14 000	19 900
11.0	76.5	43.1	12 400	17 500
12.0	75.2	42.9	11 000	15 500
14.0	72.4	42.3	8 900	12 500
16.0	69.5	41.6	7 300	10 300
18.0	66.6	40.8	6 200	8 800
20.0	63.7	39.9	5 400	7 600
22.0	60.6	38.8	4 600	6 600
24.0	57.5	37.6	4 000	5 800
26.0	54.2	36.2	3 500	5 100
28.0	50.8	34.7	3 100	4 600
30.0	47.3	32.9	2 700	4 100
32.0	43.5	31.0	2 400	3 700
34.0	39.4	28.7	2 100	3 300
36.0	35.0	26.0	1 900	3 000
38.0	29.9	22.9	1 600	2 700
40.0	24.0	18.9	1 500	2 400
42.0	16.1	13.4		2 100

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>45.7m (150 Ft.) Boom</b>				
7.9	81.4	46.9	19 100	25 200 *
8.0	81.3	46.8	18 900	25 100
9.0	80.0	46.7	16 000	23 400
10.0	78.7	46.5	13 900	19 900
11.0	77.5	46.3	12 200	17 400
12.0	76.2	46.0	10 900	15 400
14.0	73.6	45.5	8 800	12 400
16.0	70.9	44.8	7 200	10 200
18.0	68.3	44.1	6 100	8 700
20.0	65.5	43.2	5 300	7 500
22.0	62.7	42.3	4 500	6 500
24.0	59.9	41.2	3 900	5 700
26.0	56.9	39.9	3 400	5 000
28.0	53.9	38.5	3 000	4 500
30.0	50.7	37.0	2 600	4 000
32.0	47.4	35.2	2 300	3 600
34.0	43.9	33.3	2 000	3 200
36.0	40.1	31.0	1 800	2 900
38.0	36.0	28.5	1 500	2 600
40.0	31.5	25.5		2 400
42.0	26.3	21.8		2 100
44.0	19.9	17.1		1 900
<b>48.8m (160 Ft.) Boom</b>				
7.9	81.9	49.9	19 000	21 700 *
8.0	81.8	49.9	18 800	21 700 *
9.0	80.6	49.8	15 900	21 200 *
10.0	79.5	49.6	13 800	19 900
11.0	78.3	49.4	12 200	17 300
12.0	77.1	49.2	10 800	15 300
14.0	74.6	48.7	8 700	12 300
16.0	72.2	48.1	7 100	10 100
18.0	69.7	47.4	6 100	8 600
20.0	67.2	46.6	5 100	7 400
22.0	64.6	45.7	4 400	6 400
24.0	61.9	44.6	3 800	5 600
26.0	59.2	43.5	3 300	5 000
28.0	56.5	42.3	2 900	4 400
30.0	53.6	40.8	2 500	3 900
32.0	50.6	39.3	2 200	3 500
34.0	47.5	37.5	1 900	3 100
36.0	44.2	35.6	1 600	2 800
38.0	40.7	33.4	1 500	2 500
40.0	37.0	30.9		2 200
42.0	32.8	28.0		2 000
44.0	28.2	24.6		1 800
46.0	22.7	20.4		1 600

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<b>Meets ANSI B30.5 Requirements</b>
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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>51.8m (170 Ft.) Boom</b>				
8.5	81.7	52.9	17 100	18 300 *
9.0	81.2	52.9	15 900	18 000 *
10.0	80.1	52.7	13 800	17 700 *
11.0	79.0	52.5	12 100	17 200
12.0	77.8	52.3	10 700	15 200
14.0	75.6	51.8	8 600	12 200
16.0	73.3	51.3	7 000	10 000
18.0	70.9	50.6	5 900	8 500
20.0	68.6	49.9	5 000	7 300
22.0	66.2	49.0	4 300	6 300
24.0	63.7	48.1	3 700	5 500
26.0	61.2	47.0	3 200	4 900
28.0	58.7	45.9	2 800	4 300
30.0	56.0	44.6	2 400	3 800
32.0	53.3	43.2	2 100	3 400
34.0	50.5	41.6	1 800	3 000
36.0	47.6	39.8	1 600	2 700
38.0	44.5	37.9	1 400	2 400
40.0	41.2	35.7		2 100
42.0	37.8	33.3		1 900
44.0	34.0	30.5		1 700
46.0	29.8	27.3		1 500
<b>54.9m (180 Ft.) Boom</b>				
9.1	81.5	55.9	15 500	15 600 *
10.0	80.6	55.8	13 700	15 200 *
11.0	79.6	55.6	12 000	14 900 *
12.0	78.5	55.4	10 600	14 500 *
14.0	76.4	55.0	8 500	12 100
16.0	74.2	54.4	6 900	10 000
18.0	72.0	53.8	5 900	8 500
20.0	69.8	53.1	5 000	7 200
22.0	67.6	52.3	4 200	6 300
24.0	65.3	51.5	3 600	5 400
26.0	63.0	50.5	3 100	4 800
28.0	60.6	49.4	2 700	4 200
30.0	58.2	48.2	2 300	3 700
32.0	55.7	46.9	2 000	3 300
34.0	53.1	45.5	1 700	2 900
36.0	50.4	43.9	1 500	2 600
38.0	47.7	42.1		2 300
40.0	44.8	40.2		2 000
42.0	41.7	38.1		1 800
44.0	38.5	35.7		1 600
46.0	34.9	33.0		1 400

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
<b>57.9m (190 Ft.) Boom</b>				
9.1	82.0	59.0	13 500 *	13 500 *
10.0	81.1	58.9	13 100	13 100 *
11.0	80.1	58.7	11 900	12 800 *
12.0	79.1	58.5	10 500	12 500 *
14.0	77.1	58.1	8 300	11 600
16.0	75.1	57.6	6 800	9 900
18.0	73.0	57.0	5 700	8 400
20.0	70.9	56.4	4 900	7 100
22.0	68.8	55.6	4 100	6 200
24.0	66.7	54.8	3 500	5 400
26.0	64.5	53.9	3 000	4 700
28.0	62.3	52.9	2 600	4 100
30.0	60.0	51.8	2 200	3 600
32.0	57.7	50.6	1 900	3 200
34.0	55.3	49.2	1 600	2 800
36.0	52.9	47.8	1 400	2 500
38.0	50.4	46.2		2 200
40.0	47.7	44.4		1 900
42.0	45.0	42.5		1 700
44.0	42.1	40.4		1 500
<b>61.0m (200 Ft.) Boom</b>				
9.8	81.8	62.0	11 200 *	11 200 *
10.0	81.6	62.0	11 200 *	11 200 *
11.0	80.6	61.8	10 900 *	10 900 *
12.0	79.7	61.6	10 500	10 700 *
14.0	77.8	61.2	8 300	10 000 *
16.0	75.8	60.7	6 700	9 400
18.0	73.9	60.2	5 600	8 300
20.0	71.9	59.6	4 800	7 100
22.0	69.9	58.9	4 000	6 000
24.0	67.9	58.1	3 400	5 200
26.0	65.9	57.2	2 900	4 500
28.0	63.8	56.3	2 500	4 000
30.0	61.7	55.3	2 100	3 500
32.0	59.5	54.1	1 800	3 100
34.0	57.3	52.9	1 500	2 700
36.0	55.0	51.6		2 400
38.0	52.7	50.1		2 100
40.0	50.3	48.5		1 900
42.0	47.8	46.7		1 600
44.0	45.2	44.8		1 400