

# Liftcrane Boom Capacities

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

European Standards  
10 m/s Maximum Wind  
7 m/s with Jib

**222**  
**222EX**

**LIFTING CAPACITIES:** Capacities for various boom lengths and operating radii are for freely suspended loads and are calculated to comply with EN 13000 and ISO 4305 (1.25P + 0.1F). 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 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, etc., beneath boom and jib point sheaves, is considered part of main boom load. Reeved hoist line included in boom weight. 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. 9159-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.

**WIND CONDITIONS:** Machine may be operated in winds up to 10 m/s (7 m/s when jib is attached) provided crane operator judgment is used to allow for wind effect on lifted load

and other considerations noted on capacity chart are followed. Wind will have a considerable effect on a load. Loads must be compensated for accordingly by reducing load ratings, reducing operating speeds or by a combination of both. Recommend stopping operation and lowering boom and jib to approximately 75 degree boom angle when wind exceeds conditions stated. Lower boom and jib to ground when wind is above 16 m/s.

**MACHINE TRAVEL:** Machine to travel on a firm, level and uniformly supporting surface and boom within boom angle range shown in capacity chart.

**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.

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

<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.

<b>Deduct From Capacities When Jib Is Attached</b>	
Jib Length	Jib No. 10
9.1m	770 kg
12.2m	950 kg
15.2m	1 180 kg
18.3m	1 410 kg



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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		76 400 *
4.5	73.7	13.3		67 700
5.0	71.2	13.2		58 800
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		74 400
4.5	77.0	16.5		63 600
5.0	75.1	16.4		55 500
5.5	73.1	16.2		49 200
6.0	71.1	16.0		43 700
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		77 600
4.0	80.8	19.7		69 100
4.5	79.2	19.6		59 700
5.0	77.6	19.5		52 400
5.5	76.0	19.4		46 700
6.0	74.4	19.2		42 000
7.0	71.1	18.9		34 300
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	10 300	13 100
16.0	35.1	12.1	8 600	11 000
18.0	21.7	8.3	7 400	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		59 900
4.5	80.8	22.7		56 300
5.0	79.4	22.6		49 600
5.5	78.0	22.5		44 500
6.0	76.6	22.4		40 200
7.0	73.9	22.1		33 600
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	10 100	13 100
16.0	45.5	16.8	8 400	11 000
18.0	37.3	14.5	7 200	9 400
20.0	27.2	11.3	6 300	8 100
<b>24.4m (80 Ft.) BOOM</b>				
4.6	81.8	25.8		52 200
5.0	80.7	25.7		47 100
5.5	79.5	25.6		42 400
6.0	78.3	25.5		38 400
7.0	75.9	25.3		32 300
8.0	73.5	25.0		27 800
9.0	71.0	24.7		23 700
10.0	68.5	24.3		20 400
11.0	66.0	23.9	13 900	17 900
12.0	63.4	23.4	12 300	15 900
14.0	57.9	22.3	10 000	13 000
16.0	52.2	20.9	8 300	10 800
18.0	45.9	19.1	7 000	9 300
20.0	38.9	16.9	6 100	8 100
22.0	30.6	14.0	5 300	7 100
24.0	19.4	9.7	4 700	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		43 100
5.5	80.7	28.7		40 400
6.0	79.7	28.6		36 800
7.0	77.5	28.4		31 100
8.0	75.4	28.2		26 800
9.0	73.2	27.9		23 500
10.0	71.0	27.6		20 300
11.0	68.8	27.2	13 500	17 800
12.0	66.5	26.8	12 200	15 900
14.0	61.9	25.8	9 900	12 900
16.0	57.0	24.6	8 200	10 800
18.0	51.8	23.2	6 900	9 200
20.0	46.3	21.4	5 900	8 000
22.0	40.2	19.3	5 100	7 000
24.0	33.1	16.6	4 500	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		38 800
6.0	80.7	31.7		35 300
7.0	78.8	31.5		30 000
8.0	76.9	31.3		26 000
9.0	74.9	31.1		22 800
10.0	73.0	30.8	14 500	20 300
11.0	71.0	30.4	13 100	17 800
12.0	69.0	30.1	11 900	15 800
14.0	64.9	29.2	9 800	12 800
16.0	60.7	28.2	8 100	10 700
18.0	56.2	26.9	6 800	9 100
20.0	51.6	25.5	5 900	8 000
22.0	46.6	23.7	5 100	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	3 400	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		35 100
6.0	81.6	34.8		33 900
7.0	79.8	34.6		28 900
8.0	78.1	34.4		25 100
9.0	76.3	34.2		22 100
10.0	74.6	34.0	14 000	19 700
11.0	72.8	33.7	12 600	17 700
12.0	71.0	33.3	11 500	15 700
14.0	67.3	32.6	9 500	12 700
16.0	63.5	31.6	8 000	10 600
18.0	59.7	30.5	6 700	9 000
20.0	55.6	29.3	5 700	7 900
22.0	51.3	27.8	4 900	6 900
24.0	46.8	26.0	4 200	6 100
26.0	41.9	24.0	3 700	5 400
28.0	36.5	21.5	3 200	4 800
30.0	30.2	18.4	2 900	4 300
32.0	22.4	14.4	2 500	3 900
<b>36.6m (120 Ft.) BOOM</b>				
6.7	81.1	37.8		29 200
7.0	80.7	37.7		28 000
8.0	79.1	37.6	17 200	24 300
9.0	77.5	37.3	15 200	21 400
10.0	75.9	37.1	13 600	19 100
11.0	74.3	36.8	12 300	17 200
12.0	72.6	36.5	11 100	15 600
14.0	69.3	35.8	9 200	12 600
16.0	65.9	35.0	7 800	10 500
18.0	62.4	34.0	6 600	9 000
20.0	58.8	32.9	5 600	7 800
22.0	55.1	31.6	4 800	6 800
24.0	51.1	30.1	4 100	6 000
26.0	47.0	28.3	3 600	5 300
28.0	42.5	26.3	3 100	4 700
30.0	37.6	23.9	2 700	4 200
32.0	32.1	21.0	2 400	3 800
34.0	25.6	17.4	2 100	3 400
36.0	16.9	12.2	1 900	3 000



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<b>39.6m (130 Ft.) BOOM</b>				
6.7	81.8	40.9		28 100
7.0	81.4	40.8		26 900
8.0	79.9	40.7	16 600	23 400
9.0	78.5	40.5	14 700	20 800
10.0	77.0	40.2	13 100	18 500
11.0	75.5	40.0	11 800	16 700
12.0	74.0	39.7	10 700	15 100
14.0	71.0	39.1	8 900	12 600
16.0	67.9	38.3	7 500	10 400
18.0	64.7	37.4	6 400	8 900
20.0	61.5	36.4	5 400	7 700
22.0	58.1	35.2	4 600	6 700
24.0	54.6	33.9	4 000	5 900
26.0	51.0	32.4	3 400	5 100
28.0	47.1	30.6	3 000	4 600
30.0	43.0	28.6	2 600	4 000
32.0	38.6	26.3	2 200	3 600
34.0	33.7	23.5	1 900	3 200
36.0	28.0	20.2	1 700	2 900
38.0	21.0	15.8	1 500	2 600
<b>42.7m (140 Ft.) BOOM</b>				
7.3	81.6	43.9	17 500	24 900
8.0	80.7	43.8	16 000	22 700
9.0	79.3	43.6	14 200	20 100
10.0	77.9	43.4	12 700	18 000
11.0	76.5	43.1	11 400	16 200
12.0	75.2	42.9	10 400	14 700
14.0	72.4	42.3	8 600	12 300
16.0	69.5	41.6	7 300	10 400
18.0	66.6	40.8	6 200	8 800
20.0	63.7	39.9	5 300	7 600
22.0	60.6	38.8	4 500	6 600
24.0	57.5	37.6	3 800	5 800
26.0	54.2	36.2	3 300	5 000
28.0	50.8	34.7	2 800	4 400
30.0	47.3	32.9	2 400	3 900
32.0	43.5	31.0	2 100	3 400
34.0	39.4	28.7	1 800	3 000
36.0	35.0	26.0	1 600	2 700
38.0	29.9	22.9	1 300	2 400
40.0	24.0	18.9		2 200
42.0	16.1	13.4		2 000

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	15 600	22 200
8.0	81.3	46.8	15 500	22 000
9.0	80.0	46.7	13 800	19 500
10.0	78.7	46.5	12 300	17 500
11.0	77.5	46.3	11 100	15 800
12.0	76.2	46.0	10 100	14 300
14.0	73.6	45.5	8 400	12 000
16.0	70.9	44.8	7 100	10 200
18.0	68.3	44.1	6 000	8 800
20.0	65.5	43.2	5 200	7 500
22.0	62.7	42.3	4 400	6 500
24.0	59.9	41.2	3 800	5 700
26.0	56.9	39.9	3 200	5 000
28.0	53.9	38.5	2 800	4 400
30.0	50.7	37.0	2 400	3 800
32.0	47.4	35.2	2 000	3 400
34.0	43.9	33.3	1 700	3 000
36.0	40.1	31.0	1 500	2 600
38.0	36.0	28.5		2 300
40.0	31.5	25.5		2 100
42.0	26.3	21.8		1 800
44.0	19.9	17.1		1 600
<b>48.8m (160 Ft.) BOOM</b>				
7.9	81.9	49.9	15 100	21 500
8.0	81.8	49.9	15 000	21 300
9.0	80.6	49.8	13 300	18 900
10.0	79.5	49.6	11 900	17 000
11.0	78.3	49.4	10 700	15 300
12.0	77.1	49.2	9 700	13 900
14.0	74.6	48.7	8 000	11 600
16.0	72.2	48.1	6 800	9 900
18.0	69.7	47.4	5 700	8 500
20.0	67.2	46.6	4 900	7 400
22.0	64.6	45.7	4 200	6 400
24.0	61.9	44.6	3 600	5 500
26.0	59.2	43.5	3 100	4 800
28.0	56.5	42.3	2 600	4 200
30.0	53.6	40.8	2 200	3 700
32.0	50.6	39.3	1 900	3 200
34.0	47.5	37.5	1 600	2 800
36.0	44.2	35.6		2 500
38.0	40.7	33.4		2 200
40.0	37.0	30.9		1 900
42.0	32.8	28.0		1 700
44.0	28.2	24.6		1 500



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<b>51.8m (170 Ft.) BOOM</b>				
8.5	81.7	52.9	13 600	18 300 *
9.0	81.2	52.9	12 900	18 000 *
10.0	80.1	52.7	11 600	16 500
11.0	79.0	52.5	10 400	14 900
12.0	77.8	52.3	9 400	13 600
14.0	75.6	51.8	7 800	11 400
16.0	73.3	51.3	6 600	9 600
18.0	70.9	50.6	5 600	8 300
20.0	68.6	49.9	4 800	7 200
22.0	66.2	49.0	4 100	6 300
24.0	63.7	48.1	3 500	5 500
26.0	61.2	47.0	3 000	4 800
28.0	58.7	45.9	2 500	4 200
30.0	56.0	44.6	2 200	3 600
32.0	53.3	43.2	1 800	3 200
34.0	50.5	41.6	1 500	2 800
36.0	47.6	39.8		2 400
38.0	44.5	37.9		2 100
40.0	41.2	35.7		1 800
42.0	37.8	33.3		1 600
44.0	34.0	30.5		1 400
<b>54.9m (180 Ft.) BOOM</b>				
9.1	81.5	55.9	12 300	15 600 *
10.0	80.6	55.8	11 200	15 200 *
11.0	79.6	55.6	10 100	14 500
12.0	78.5	55.4	9 100	13 200
14.0	76.4	55.0	7 600	11 000
16.0	74.2	54.4	6 300	9 400
18.0	72.0	53.8	5 300	8 100
20.0	69.8	53.1	4 600	7 000
22.0	67.6	52.3	3 900	6 100
24.0	65.3	51.5	3 300	5 300
26.0	63.0	50.5	2 800	4 700
28.0	60.6	49.4	2 400	4 100
30.0	58.2	48.2	2 000	3 500
32.0	55.7	46.9	1 700	3 100
34.0	53.1	45.5		2 700
36.0	50.4	43.9		2 300
38.0	47.7	42.1		2 000
40.0	44.8	40.2		1 700
42.0	41.7	38.1		1 500

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	11 800	13 500 *
10.0	81.1	58.9	10 800	13 100 *
11.0	80.1	58.7	9 700	12 800 *
12.0	79.1	58.5	8 800	12 500 *
14.0	77.1	58.1	7 200	10 700
16.0	75.1	57.6	6 100	9 100
18.0	73.0	57.0	5 100	7 800
20.0	70.9	56.4	4 300	6 700
22.0	68.8	55.6	3 600	5 800
24.0	66.7	54.8	3 100	5 100
26.0	64.5	53.9	2 600	4 500
28.0	62.3	52.9	2 200	3 900
30.0	60.0	51.8	1 800	3 400
32.0	57.7	50.6	1 500	2 900
34.0	55.3	49.2		2 500
36.0	52.9	47.8		2 200
38.0	50.4	46.2		1 900
40.0	47.7	44.4		1 600
<b>61.0m (200 Ft.) BOOM</b>				
9.8	81.8	62.0	10 700	11 200 *
10.0	81.6	62.0	10 400	11 200 *
11.0	80.6	61.8	9 300	10 900 *
12.0	79.7	61.6	8 400	10 700 *
14.0	77.8	61.2	7 000	9 900
16.0	75.8	60.7	5 800	8 800
18.0	73.9	60.2	4 800	7 500
20.0	71.9	59.6	4 100	6 400
22.0	69.9	58.9	3 400	5 600
24.0	67.9	58.1	2 900	4 800
26.0	65.9	57.2	2 400	4 200
28.0	63.8	56.3	2 000	3 700
30.0	61.7	55.3	1 600	3 200
32.0	59.5	54.1		2 800
34.0	57.3	52.9		2 400
36.0	55.0	51.6		2 000
38.0	52.7	50.1		1 700