

Liftcrane Boom Capacities

Boom No. 222HD/222 With Open Throat Top
24 180 kg Counterweight
6 807 mm Crawlers Extended
360 Degree Rating

Meets
ANSI B30.5
Requirements

222HD

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 (*).

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 crawlers fully extended (5 105 mm) and gantry up. Refer to boom rigging **No. 913235** and Wire Rope Specification chart **No. 9175-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-C**.

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 crane counterweight = 12 930 kg, 2nd crane counterweight = 11 250 kg.

Deduct From Capacities When Jib Is Attached

Jib Length	Jib No. 10
9.1m	770 kg
12.2m	950 kg
15.2m	1 170 kg
18.3m	1 400 kg

Maximum Boom and Jib Lengths Lifted Unassisted

Over End of Blocked Crawlers		Over Side of Extended Crawlers	
Boom Length	Jib No. 10	Boom Length	Jib No. 10
61.0m	—	61.0m	—
57.9m	18.3m	57.9m	—
		54.9m	12.2m
		51.8m	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 Kilograms
12.2m (40 Ft.) Boom			
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	60 300
5.5	68.7	13.0	50 700
6.0	66.1	12.8	43 900
7.0	60.9	12.3	34 500
8.0	55.3	11.6	28 400
9.0	49.3	10.8	24 000
10.0	42.7	9.9	20 800
11.0	35.1	8.6	18 300
12.0	25.7	6.8	16 300
15.2m (50 Ft.) Boom			
3.4	81.4	16.7	90 700 *
3.5	80.8	16.7	87 300 *
4.0	78.9	16.6	76 700 *
4.5	77.0	16.5	68 200 *
5.0	75.1	16.4	60 200 *
5.5	73.1	16.2	50 700
6.0	71.1	16.0	43 800
7.0	67.1	15.7	34 400
8.0	62.9	15.2	28 300
9.0	58.6	14.6	24 000
10.0	54.1	13.9	20 700
11.0	49.2	13.1	18 200
12.0	44.0	12.2	16 200
14.0	31.6	9.6	13 200
18.3m (60 Ft.) Boom			
3.7	81.9	19.8	83 300 *
4.0	80.8	19.7	76 400 *
4.5	79.2	19.6	65 900 *
5.0	77.6	19.5	58 200 *
5.5	76.0	19.4	50 600
6.0	74.4	19.2	43 800
7.0	71.1	18.9	34 400
8.0	67.7	18.5	28 200
9.0	64.3	18.1	23 900
10.0	60.7	17.6	20 600
11.0	57.1	17.0	18 100
12.0	53.2	16.2	16 100
14.0	44.9	14.5	13 100
16.0	35.1	12.1	11 000
18.0	21.7	8.3	9 400

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
21.3m (70 Ft.) Boom			
4.3	81.4	22.7	67 800 *
4.5	80.8	22.7	63 800 *
5.0	79.4	22.6	56 000 *
5.5	78.0	22.5	50 100
6.0	76.6	22.4	43 800
7.0	73.9	22.1	34 300
8.0	71.0	21.8	28 100
9.0	68.2	21.4	23 800
10.0	65.2	21.0	20 500
11.0	62.2	20.5	18 000
12.0	59.2	19.9	16 100
14.0	52.6	18.6	13 100
16.0	45.5	16.8	10 900
18.0	37.3	14.5	9 300
20.0	27.2	11.3	8 100
24.4m (80 Ft.) Boom			
4.6	81.8	25.8	60 300 *
5.0	80.7	25.7	53 900 *
5.5	79.5	25.6	48 300 *
6.0	78.3	25.5	43 400
7.0	75.9	25.3	34 200
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	17 900
12.0	63.4	23.4	15 900
14.0	57.9	22.3	12 900
16.0	52.2	20.9	10 800
18.0	45.9	19.1	9 200
20.0	38.9	16.9	8 000
22.0	30.6	14.0	7 000
24.0	19.4	9.7	6 200
27.4m (90 Ft.) Boom			
5.2	81.4	28.8	50 300 *
5.5	80.7	28.7	46 700 *
6.0	79.7	28.6	42 600 *
7.0	77.5	28.4	34 200
8.0	75.4	28.2	28 000
9.0	73.2	27.9	23 600
10.0	71.0	27.6	20 300
11.0	68.8	27.2	17 800
12.0	66.5	26.8	15 900
14.0	61.9	25.8	12 800
16.0	57.0	24.6	10 700
18.0	51.8	23.2	9 100
20.0	46.3	21.4	7 900
22.0	40.2	19.3	6 900
24.0	33.1	16.6	6 100
26.0	24.4	12.9	5 400

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
30.5m (100 Ft.) Boom			
5.5	81.7	31.8	45 400 *
6.0	80.7	31.7	41 300 *
7.0	78.8	31.5	34 000
8.0	76.9	31.3	27 900
9.0	74.9	31.1	23 500
10.0	73.0	30.8	20 200
11.0	71.0	30.4	17 800
12.0	69.0	30.1	15 700
14.0	64.9	29.2	12 700
16.0	60.7	28.2	10 600
18.0	56.2	26.9	9 000
20.0	51.6	25.5	7 800
22.0	46.6	23.7	6 800
24.0	41.1	21.6	6 000
26.0	35.0	19.1	5 300
28.0	27.7	15.7	4 700
30.0	17.9	10.9	4 200
33.5m (110 Ft.) Boom			
5.8	81.9	34.8	42 300 *
6.0	81.6	34.8	40 500 *
7.0	79.8	34.6	33 900
8.0	78.1	34.4	27 900
9.0	76.3	34.2	23 600
10.0	74.6	34.0	20 300
11.0	72.8	33.7	17 800
12.0	71.0	33.3	15 800
14.0	67.3	32.6	12 800
16.0	63.5	31.6	10 600
18.0	59.7	30.5	9 000
20.0	55.6	29.3	7 900
22.0	51.3	27.8	6 900
24.0	46.8	26.0	6 100
26.0	41.9	24.0	5 400
28.0	36.5	21.5	4 800
30.0	30.2	18.4	4 300
32.0	22.4	14.4	3 900

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36.6m (120 Ft.) Boom			
6.7	81.1	37.8	34 900 *
7.0	80.7	37.7	33 200 *
8.0	79.1	37.6	27 800
9.0	77.5	37.3	23 500
10.0	75.9	37.1	20 200
11.0	74.3	36.8	17 700
12.0	72.6	36.5	15 700
14.0	69.3	35.8	12 700
16.0	65.9	35.0	10 500
18.0	62.4	34.0	9 000
20.0	58.8	32.9	7 700
22.0	55.1	31.6	6 800
24.0	51.1	30.1	5 900
26.0	47.0	28.3	5 300
28.0	42.5	26.3	4 700
30.0	37.6	23.9	4 200
32.0	32.1	21.0	3 800
34.0	25.6	17.4	3 400
36.0	16.9	12.2	3 000
39.6m (130 Ft.) Boom			
6.7	81.8	40.9	34 100 *
7.0	81.4	40.8	32 400 *
8.0	79.9	40.7	27 500
9.0	78.5	40.5	23 400
10.0	77.0	40.2	20 100
11.0	75.5	40.0	17 600
12.0	74.0	39.7	15 600
14.0	71.0	39.1	12 600
16.0	67.9	38.3	10 400
18.0	64.7	37.4	8 900
20.0	61.5	36.4	7 600
22.0	58.1	35.2	6 600
24.0	54.6	33.9	5 800
26.0	51.0	32.4	5 100
28.0	47.1	30.6	4 600
30.0	43.0	28.6	4 100
32.0	38.6	26.3	3 700
34.0	33.7	23.5	3 300
36.0	28.0	20.2	3 000
38.0	21.0	15.8	2 700

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
42.7m (140 Ft.) Boom			
7.3	81.6	43.9	29 900 *
8.0	80.7	43.8	26 800
9.0	79.3	43.6	23 300
10.0	77.9	43.4	19 900
11.0	76.5	43.1	17 500
12.0	75.2	42.9	15 500
14.0	72.4	42.3	12 400
16.0	69.5	41.6	10 300
18.0	66.6	40.8	8 700
20.0	63.7	39.9	7 500
22.0	60.6	38.8	6 500
24.0	57.5	37.6	5 700
26.0	54.2	36.2	5 000
28.0	50.8	34.7	4 500
30.0	47.3	32.9	4 000
32.0	43.5	31.0	3 500
34.0	39.4	28.7	3 200
36.0	35.0	26.0	2 800
38.0	29.9	22.9	2 600
40.0	24.0	18.9	2 300
42.0	16.1	13.4	1 900 *
45.7m (150 Ft.) Boom			
7.9	81.4	46.9	26 700 *
8.0	81.3	46.8	26 500 *
9.0	80.0	46.7	23 300
10.0	78.7	46.5	19 900
11.0	77.5	46.3	17 500
12.0	76.2	46.0	15 500
14.0	73.6	45.5	12 500
16.0	70.9	44.8	10 300
18.0	68.3	44.1	8 700
20.0	65.5	43.2	7 600
22.0	62.7	42.3	6 500
24.0	59.9	41.2	5 700
26.0	56.9	39.9	5 000
28.0	53.9	38.5	4 500
30.0	50.7	37.0	4 000
32.0	47.4	35.2	3 600
34.0	43.9	33.3	3 200
36.0	40.1	31.0	2 900
38.0	36.0	28.5	2 600
40.0	31.5	25.5	2 300
42.0	26.3	21.8	2 100
44.0	19.9	17.1	1 800

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
48.8m (160 Ft.) Boom			
7.9	81.9	49.9	26 700 *
8.0	81.8	49.9	26 400 *
9.0	80.6	49.8	22 700 *
10.0	79.5	49.6	19 900
11.0	78.3	49.4	17 400
12.0	77.1	49.2	15 400
14.0	74.6	48.7	12 300
16.0	72.2	48.1	10 200
18.0	69.7	47.4	8 600
20.0	67.2	46.6	7 400
22.0	64.6	45.7	6 400
24.0	61.9	44.6	5 600
26.0	59.2	43.5	4 900
28.0	56.5	42.3	4 400
30.0	53.6	40.8	3 900
32.0	50.6	39.3	3 400
34.0	47.5	37.5	3 100
36.0	44.2	35.6	2 800
38.0	40.7	33.4	2 500
40.0	37.0	30.9	2 200
42.0	32.8	28.0	2 000
44.0	28.2	24.6	1 700
51.8m (170 Ft.) Boom			
8.5	81.7	52.9	23 800 *
9.0	81.2	52.9	22 200 *
10.0	80.1	52.7	19 500 *
11.0	79.0	52.5	17 300
12.0	77.8	52.3	15 300
14.0	75.6	51.8	12 200
16.0	73.3	51.3	10 000
18.0	70.9	50.6	8 500
20.0	68.6	49.9	7 300
22.0	66.2	49.0	6 300
24.0	63.7	48.1	5 500
26.0	61.2	47.0	4 800
28.0	58.7	45.9	4 200
30.0	56.0	44.6	3 700
32.0	53.3	43.2	3 300
34.0	50.5	41.6	3 000
36.0	47.6	39.8	2 600
38.0	44.5	37.9	2 300
40.0	41.2	35.7	2 100
42.0	37.8	33.3	1 800
44.0	34.0	30.5	1 600
46.0	29.8	27.3	1 500

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222HD

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24 180 kg Counterweight

6 807 mm Crawlers Extended

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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
54.9m (180 Ft.) Boom			
9.1	81.5	55.9	18 100 *
10.0	80.6	55.8	18 100 *
11.0	79.6	55.6	17 200
12.0	78.5	55.4	15 200
14.0	76.4	55.0	12 100
16.0	74.2	54.4	10 000
18.0	72.0	53.8	8 400
20.0	69.8	53.1	7 200
22.0	67.6	52.3	6 200
24.0	65.3	51.5	5 400
26.0	63.0	50.5	4 700
28.0	60.6	49.4	4 100
30.0	58.2	48.2	3 600
32.0	55.7	46.9	3 200
34.0	53.1	45.5	2 800
36.0	50.4	43.9	2 500
38.0	47.7	42.1	2 200
40.0	44.8	40.2	1 900
42.0	41.7	38.1	1 700
44.0	38.5	35.7	1 500

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
57.9m (190 Ft.) Boom			
9.1	82.0	59.0	17 100 *
10.0	81.1	58.9	16 700 *
11.0	80.1	58.7	16 300
12.0	79.1	58.5	15 200
14.0	77.1	58.1	12 100
16.0	75.1	57.6	9 900
18.0	73.0	57.0	8 400
20.0	70.9	56.4	7 200
22.0	68.8	55.6	6 200
24.0	66.7	54.8	5 400
26.0	64.5	53.9	4 700
28.0	62.3	52.9	4 100
30.0	60.0	51.8	3 600
32.0	57.7	50.6	3 200
34.0	55.3	49.2	2 800
36.0	52.9	47.8	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

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Kilograms
61.0m (200 Ft.) Boom			
9.8	81.8	62.0	15 300 *
10.0	81.6	62.0	15 100 *
11.0	80.6	61.8	14 500 *
12.0	79.7	61.6	14 100 *
14.0	77.8	61.2	12 000
16.0	75.8	60.7	9 800
18.0	73.9	60.2	8 300
20.0	71.9	59.6	7 100
22.0	69.9	58.9	6 100
24.0	67.9	58.1	5 300
26.0	65.9	57.2	4 500
28.0	63.8	56.3	4 000
30.0	61.7	55.3	3 500
32.0	59.5	54.1	3 100
34.0	57.3	52.9	2 700
36.0	55.0	51.6	2 400
38.0	52.7	50.1	2 100
40.0	50.3	48.5	1 800
42.0	47.8	46.7	1 600
44.0	45.2	44.8	1 400