

Liftcrane Boom Capacities

222HD SERIES B

Boom No. 222HD With Open Throat Top
28 710 kg Crane Counterweight
6 350 kg Crawler Frame Counterweight
360 Degree Rating

Meets
ANSI B30.5
Requirements

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. When rear drum is equipped with high line pull option, upper boom point capacity for liftcrane service with single part whip line is 18 140 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. 911764** and Wire Rope Specification chart **No. 9063-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-B**.

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 = 4 530 kg, 3rd crane counterweight = 11 250 kg and four 1 590 kg crawler frame counterweights.

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		Over Side of Retracted Crawlers	
Boom Length	Jib No. 10	Boom Length	Jib No. 10	Boom Length	Jib No. 10
45.7m	—	45.7m	—	45.7m	—
42.7m	—	42.7m	—	42.7m	—
39.6m	12.2m	39.6m	12.2m	39.6m	12.2m
36.6m	18.3m	36.6m	18.3m	36.6m	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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12.2m (40 Ft.) Boom				
3.0	81.5	13.7		90 700 *
3.5	79.3	13.6		87 400 *
4.0	76.9	13.5		76 800 *
4.5	74.5	13.3		68 200 *
5.0	72.0	13.2		61 400 *
5.5	69.5	13.0		55 600 *
6.0	66.9	12.8		50 700 *
7.0	61.7	12.3		39 700
8.0	56.1	11.6		32 500
9.0	50.1	10.8		27 400
10.0	43.5	9.9		23 400
11.0	36.0	8.6	14 700	19 400 *
12.0	26.5	6.9	13 100	16 400 *
15.2m (50 Ft.) Boom				
3.7	80.9	16.7		83 900 *
4.0	79.6	16.6		76 700 *
4.5	77.7	16.5		68 200 *
5.0	75.7	16.4		61 100 *
5.5	73.8	16.2		53 900 *
6.0	71.8	16.1		49 700 *
7.0	67.7	15.7		39 700
8.0	63.6	15.2		32 400
9.0	59.3	14.6		27 300
10.0	54.7	13.9	16 600	23 400
11.0	49.9	13.1	14 600	20 500
12.0	44.7	12.2	12 900	18 100
14.0	32.3	9.6	10 400	14 400
18.3m (60 Ft.) Boom				
4.0	81.5	19.7		77 400 *
4.5	79.7	19.6		67 500 *
5.0	78.1	19.5		58 400 *
5.5	76.5	19.4		53 400 *
6.0	74.9	19.2		47 500 *
7.0	71.6	18.9		38 800 *
8.0	68.3	18.5		32 300
9.0	64.8	18.1		27 100
10.0	61.3	17.6	16 400	23 300
11.0	57.6	17.0	14 400	20 300
12.0	53.8	16.3	12 800	18 000
14.0	45.4	14.5	10 300	14 500
16.0	35.6	12.1	8 500	11 900
18.0	22.2	8.3	7 100	8 700 *

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
21.3m (70 Ft.) Boom				
4.3	81.9	22.7		69 800 *
4.5	81.2	22.7		64 900 *
5.0	79.9	22.6		56 200 *
5.5	78.5	22.5		51 200 *
6.0	77.1	22.4		45 600 *
7.0	74.3	22.1		37 500 *
8.0	71.5	21.8		32 300
9.0	68.6	21.4	18 900	27 000
10.0	65.7	21.0	16 300	23 200
11.0	62.7	20.5	14 300	20 200
12.0	59.6	19.9	12 700	17 900
14.0	53.1	18.6	10 200	14 400
16.0	46.0	16.8	8 400	11 900
18.0	37.8	14.5	7 000	10 000
20.0	27.6	11.3	5 900	8 000 *
24.4m (80 Ft.) Boom				
4.9	81.4	25.7		55 700 *
5.0	81.1	25.7		54 800 *
5.5	79.9	25.6		49 200 *
6.0	78.7	25.5		43 800 *
7.0	76.3	25.3		36 500 *
8.0	73.9	25.0	22 100	31 700
9.0	71.4	24.7	18 700	27 000
10.0	68.9	24.3	16 200	23 100
11.0	66.4	23.9	14 100	20 100
12.0	63.8	23.4	12 500	17 800
14.0	58.4	22.3	10 100	14 300
16.0	52.6	20.9	8 200	11 700
18.0	46.4	19.1	6 800	9 800
20.0	39.4	16.9	5 800	8 400
22.0	31.1	14.0	4 900	6 900 *
24.0	19.8	9.7	4 200	4 900 *
27.4m (90 Ft.) Boom				
5.2	81.7	28.8		51 700 *
5.5	81.1	28.7		47 600 *
6.0	80.0	28.6		42 300 *
7.0	77.9	28.4		35 200 *
8.0	75.7	28.2	22 000	30 600 *
9.0	73.6	27.9	18 600	26 200 *
10.0	71.4	27.6	16 000	22 900
11.0	69.1	27.2	14 000	20 000
12.0	66.9	26.8	12 400	17 700
14.0	62.2	25.8	9 900	14 200
16.0	57.4	24.6	8 100	11 600
18.0	52.2	23.2	6 700	9 700
20.0	46.7	21.4	5 700	8 300
22.0	40.5	19.3	4 800	7 100
24.0	33.5	16.6	4 100	5 900
26.0	24.7	12.9	3 500	4 500 *

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Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
30.5m (100 Ft.) Boom				
5.8	81.4	31.8		43 000 *
6.0	81.0	31.7		41 000 *
7.0	79.1	31.5	26 400	34 300 *
8.0	77.2	31.3	21 800	29 500 *
9.0	75.2	31.1	18 500	25 200 *
10.0	73.3	30.8	15 900	22 000 *
11.0	71.3	30.4	13 800	19 400 *
12.0	69.3	30.1	12 200	17 500
14.0	65.2	29.2	9 800	14 000
16.0	61.0	28.2	8 000	11 500
18.0	56.6	26.9	6 600	9 600
20.0	51.9	25.5	5 500	8 200
22.0	46.9	23.7	4 700	7 000
24.0	41.4	21.6	3 900	6 000
26.0	35.3	19.1	3 300	4 900 *
28.0	28.0	15.7	2 900	3 900 *
30.0	18.3	10.9	2 400	2 600 *
33.5m (110 Ft.) Boom				
6.1	81.7	34.8		39 300 *
7.0	80.1	34.6	26 500	34 200 *
8.0	78.4	34.4	21 900	28 900 *
9.0	76.6	34.2	18 500	24 700 *
10.0	74.9	34.0	16 000	21 600 *
11.0	73.1	33.7	13 900	19 100 *
12.0	71.3	33.3	12 400	17 400
14.0	67.6	32.6	9 900	14 100
16.0	63.8	31.6	8 100	11 600
18.0	59.9	30.5	6 700	9 700
20.0	55.9	29.3	5 600	8 300
22.0	51.6	27.8	4 800	7 100
24.0	47.1	26.0	4 100	6 100
26.0	42.2	24.0	3 500	5 400
28.0	36.7	21.5	2 900	4 400 *
30.0	30.5	18.4	2 500	3 500 *
32.0	22.7	14.4	2 100	2 600 *

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
36.6m (120 Ft.) Boom				
6.7	81.4	37.8	28 000	35 600 *
7.0	80.9	37.7	26 500	33 700 *
8.0	79.4	37.6	21 800	27 900 *
9.0	77.8	37.3	18 400	23 900 *
10.0	76.1	37.1	15 800	20 800 *
11.0	74.5	36.8	13 800	18 300 *
12.0	72.9	36.5	12 200	17 400
14.0	69.6	35.8	9 800	14 000
16.0	66.2	35.0	7 900	11 500
18.0	62.7	34.0	6 600	9 600
20.0	59.1	32.9	5 500	8 100
22.0	55.3	31.6	4 600	6 900
24.0	51.4	30.1	3 900	6 000
26.0	47.3	28.3	3 300	5 100 *
28.0	42.8	26.3	2 800	4 300 *
30.0	37.9	23.9	2 400	3 600 *
32.0	32.4	21.0	2 000	2 900 *
34.0	25.9	17.4	1 600	2 100 *
39.6m (130 Ft.) Boom				
7.3	81.2	40.8	24 600	30 700 *
8.0	80.2	40.7	21 700	27 200 *
9.0	78.7	40.5	18 300	23 200 *
10.0	77.2	40.2	15 700	20 100 *
11.0	75.7	40.0	13 600	17 700 *
12.0	74.2	39.7	12 100	17 300 *
14.0	71.2	39.1	9 700	13 900
16.0	68.1	38.3	7 800	11 400
18.0	64.9	37.4	6 400	9 500
20.0	61.7	36.4	5 300	8 000
22.0	58.3	35.2	4 500	6 800
24.0	54.9	33.9	3 800	5 800 *
26.0	51.2	32.4	3 200	4 900 *
28.0	47.4	30.6	2 700	4 200 *
30.0	43.3	28.6	2 200	3 500 *
32.0	38.9	26.3	1 900	2 900 *
34.0	33.9	23.5	1 500	2 300 *
36.0	28.3	20.2		1 700 *

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42.7m (140 Ft.) Boom				
7.3	81.8	43.9	24 500	30 000 *
8.0	80.9	43.8	21 500	26 400 *
9.0	79.5	43.6	18 100	22 500 *
10.0	78.2	43.4	15 600	19 500 *
11.0	76.8	43.1	13 500	17 700 *
12.0	75.4	42.9	12 100	16 900 *
14.0	72.6	42.3	9 500	13 300 *
16.0	69.7	41.6	7 700	10 900 *
18.0	66.9	40.8	6 300	9 100 *
20.0	63.9	39.9	5 200	7 600 *
22.0	60.8	38.8	4 400	6 500 *
24.0	57.7	37.6	3 600	5 500 *
26.0	54.5	36.2	3 000	4 600 *
28.0	51.1	34.7	2 500	3 900 *
30.0	47.5	32.9	2 100	3 300 *
32.0	43.7	31.0	1 700	2 700 *
34.0	39.7	28.7		2 100 *
36.0	35.2	26.0		1 700 *
45.7m (150 Ft.) Boom				
7.9	81.6	46.9	21 800	26 400 *
8.0	81.5	46.8	21 500	26 100 *
9.0	80.2	46.7	18 100	22 100 *
10.0	79.0	46.5	15 600	19 100 *
11.0	77.7	46.3	13 600	17 700 *
12.0	76.4	46.0	12 100	16 600 *
14.0	73.8	45.5	9 500	13 100 *
16.0	71.2	44.8	7 700	10 700 *
18.0	68.5	44.1	6 300	8 900 *
20.0	65.8	43.2	5 300	7 500 *
22.0	63.0	42.3	4 400	6 400 *
24.0	60.1	41.2	3 700	5 400 *
26.0	57.2	39.9	3 100	4 600 *
28.0	54.1	38.5	2 500	3 900 *
30.0	50.9	37.0	2 100	3 300 *
32.0	47.6	35.2	1 800	2 800 *
34.0	44.1	33.3		2 200 *
36.0	40.3	31.0		1 800 *
38.0	36.3	28.5		1 300 *