

Liftcrane Boom Capacities

Boom No. 222HD With Open Throat Top
24 180 kg Counterweight
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 (*). 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 = 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		Over Side of Retracted Crawlers	
Boom Length	Jib No. 10	Boom Length	Jib No. 10	Boom Length	Jib No. 10
45.7m	—	45.7m	—	42.7m	—
42.7m	—	42.7m	—	39.6m	—
39.6m	12.2m	39.6m	12.2m	36.6m	15.2m
36.6m	18.3m	36.6m	18.3m	33.5m	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.

Liftcrane Boom Capacities

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

Meets
ANSI B30.5
Requirements

222HD

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
12.2m (40 Ft.) Boom				
3.0	81.5	13.7		90 700 *
3.5	79.3	13.6		87 100 *
4.0	76.9	13.5		75 900 *
4.5	74.5	13.3		67 900 *
5.0	72.0	13.2		59 100
5.5	69.5	13.0		49 500
6.0	66.9	12.8		42 700
7.0	61.7	12.3		33 300
8.0	56.1	11.6		27 200
9.0	50.1	10.8	15 900	22 800
10.0	43.5	9.9	13 700	19 600
11.0	36.0	8.6	12 100	17 100
12.0	26.5	6.9	10 700	15 100
15.2m (50 Ft.) Boom				
3.7	80.9	16.7		82 300 *
4.0	79.6	16.6		75 600 *
4.5	77.7	16.5		67 400 *
5.0	75.7	16.4		59 100
5.5	73.8	16.2		49 500
6.0	71.8	16.1		42 600
7.0	67.7	15.7		33 300
8.0	63.6	15.2	18 600	27 100
9.0	59.3	14.6	15 800	22 700
10.0	54.7	13.9	13 600	19 500
11.0	49.9	13.1	11 900	17 000
12.0	44.7	12.2	10 500	15 000
14.0	32.3	9.6	8 400	12 000
18.3m (60 Ft.) Boom				
4.0	81.5	19.7		75 800 *
4.5	79.7	19.6		67 100 *
5.0	78.1	19.5		58 200
5.5	76.5	19.4		49 400
6.0	74.9	19.2		42 600
7.0	71.6	18.9		33 200
8.0	68.3	18.5	18 500	27 000
9.0	64.8	18.1	15 600	22 600
10.0	61.3	17.6	13 400	19 300
11.0	57.6	17.0	11 800	16 900
12.0	53.8	16.3	10 400	14 900
14.0	45.4	14.5	8 300	11 800
16.0	35.6	12.1	6 700	9 700
18.0	22.2	8.3	5 600	8 100

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		49 400
6.0	77.1	22.4		42 500
7.0	74.3	22.1	22 300	33 100
8.0	71.5	21.8	18 400	26 900
9.0	68.6	21.4	15 500	22 500
10.0	65.7	21.0	13 300	19 200
11.0	62.7	20.5	11 700	16 800
12.0	59.6	19.9	10 300	14 800
14.0	53.1	18.6	8 200	11 800
16.0	46.0	16.8	6 700	9 600
18.0	37.8	14.5	5 500	8 000
20.0	27.6	11.3	4 600	6 800
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	27 600	42 400
7.0	76.3	25.3	22 100	33 000
8.0	73.9	25.0	18 200	26 800
9.0	71.4	24.7	15 400	22 400
10.0	68.9	24.3	13 200	19 100
11.0	66.4	23.9	11 600	16 700
12.0	63.8	23.4	10 200	14 700
14.0	58.4	22.3	8 000	11 600
16.0	52.6	20.9	6 500	9 500
18.0	46.4	19.1	5 300	7 900
20.0	39.4	16.9	4 400	6 600
22.0	31.1	14.0	3 700	5 700
24.0	19.8	9.7	3 100	4 700
27.4m (90 Ft.) Boom				
5.2	81.7	28.8		51 700 *
5.5	81.1	28.7	31 300	47 600 *
6.0	80.0	28.6	27 400	42 200
7.0	77.9	28.4	22 000	32 900
8.0	75.7	28.2	18 100	26 700
9.0	73.6	27.9	15 300	22 300
10.0	71.4	27.6	13 100	19 000
11.0	69.1	27.2	11 500	16 600
12.0	66.9	26.8	10 100	14 500
14.0	62.2	25.8	7 900	11 600
16.0	57.4	24.6	6 400	9 400
18.0	52.2	23.2	5 200	7 800
20.0	46.7	21.4	4 300	6 600
22.0	40.5	19.3	3 600	5 500
24.0	33.5	16.6	3 000	4 800
26.0	24.7	12.9	2 500	4 100

Liftcrane Boom Capacities

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

Meets
 ANSI B30.5
 Requirements

222HD

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	28 800	43 000 *
6.0	81.0	31.7	27 300	41 000 *
7.0	79.1	31.5	21 800	32 900
8.0	77.2	31.3	18 000	26 600
9.0	75.2	31.1	15 100	22 200
10.0	73.3	30.8	12 900	18 900
11.0	71.3	30.4	11 300	16 400
12.0	69.3	30.1	9 900	14 400
14.0	65.2	29.2	7 800	11 400
16.0	61.0	28.2	6 300	9 300
18.0	56.6	26.9	5 100	7 700
20.0	51.9	25.5	4 200	6 400
22.0	46.9	23.7	3 400	5 400
24.0	41.4	21.6	2 800	4 600
26.0	35.3	19.1	2 300	4 000
28.0	28.0	15.7	1 900	3 400
30.0	18.3	10.9	1 500	2 600
33.5m (110 Ft.) Boom				
6.1	81.7	34.8	26 700	39 300 *
7.0	80.1	34.6	21 900	33 100
8.0	78.4	34.4	18 000	26 700
9.0	76.6	34.2	15 200	22 200
10.0	74.9	34.0	13 000	18 900
11.0	73.1	33.7	11 400	16 500
12.0	71.3	33.3	10 000	14 500
14.0	67.6	32.6	7 900	11 500
16.0	63.8	31.6	6 400	9 400
18.0	59.9	30.5	5 200	7 800
20.0	55.9	29.3	4 300	6 500
22.0	51.6	27.8	3 500	5 500
24.0	47.1	26.0	2 900	4 700
26.0	42.2	24.0	2 400	4 000
28.0	36.7	21.5	2 000	3 500
30.0	30.5	18.4	1 600	3 000
32.0	22.7	14.4	1 300	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	23 200	35 200
7.0	80.9	37.7	21 900	33 000
8.0	79.4	37.6	17 900	26 500
9.0	77.8	37.3	15 000	22 100
10.0	76.1	37.1	12 900	18 900
11.0	74.5	36.8	11 300	16 400
12.0	72.9	36.5	9 900	14 400
14.0	69.6	35.8	7 800	11 400
16.0	66.2	35.0	6 200	9 200
18.0	62.7	34.0	5 000	7 600
20.0	59.1	32.9	4 100	6 400
22.0	55.3	31.6	3 400	5 400
24.0	51.4	30.1	2 800	4 600
26.0	47.3	28.3	2 200	3 900
28.0	42.8	26.3	1 800	3 300
30.0	37.9	23.9	1 500	2 800
32.0	32.4	21.0		2 400
34.0	25.9	17.4		2 000
39.6m (130 Ft.) Boom				
7.3	81.2	40.8	20 300	30 500
8.0	80.2	40.7	17 800	26 400
9.0	78.7	40.5	14 900	22 000
10.0	77.2	40.2	12 700	18 700
11.0	75.7	40.0	11 200	16 400
12.0	74.2	39.7	9 800	14 300
14.0	71.2	39.1	7 600	11 300
16.0	68.1	38.3	6 100	9 100
18.0	64.9	37.4	4 900	7 500
20.0	61.7	36.4	4 000	6 300
22.0	58.3	35.2	3 300	5 300
24.0	54.9	33.9	2 600	4 400
26.0	51.2	32.4	2 200	3 800
28.0	47.4	30.6	1 700	3 200
30.0	43.3	28.6		2 700
32.0	38.9	26.3		2 300
34.0	33.9	23.5		2 000
36.0	28.3	20.2		1 600

Liftcrane Boom Capacities

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

Meets
 ANSI B30.5
 Requirements

222HD

Oper. Rad. Meters	Boom Ang. Deg.	Boom Point Elev. Meters	Boom Capacity Crawlers Retracted Kilograms	Boom Capacity Crawlers Extended Kilograms
42.7m (140 Ft.) Boom				
7.3	81.8	43.9	20 200	30 000 *
8.0	80.9	43.8	17 700	26 400
9.0	79.5	43.6	14 800	21 900
10.0	78.2	43.4	12 700	18 600
11.0	76.8	43.1	11 000	16 200
12.0	75.4	42.9	9 600	14 200
14.0	72.6	42.3	7 500	11 100
16.0	69.7	41.6	6 000	9 000
18.0	66.9	40.8	4 800	7 400
20.0	63.9	39.9	3 900	6 100
22.0	60.8	38.8	3 100	5 100
24.0	57.7	37.6	2 500	4 300
26.0	54.5	36.2	2 000	3 600
28.0	51.1	34.7	1 600	3 100
30.0	47.5	32.9		2 600
32.0	43.7	31.0		2 200
34.0	39.7	28.7		1 800
36.0	35.2	26.0		1 500
45.7m (150 Ft.) Boom				
7.9	81.6	46.9	17 900	26 400 *
8.0	81.5	46.8	17 700	26 100
9.0	80.2	46.7	14 800	22 000
10.0	79.0	46.5	12 700	18 700
11.0	77.7	46.3	11 100	16 300
12.0	76.4	46.0	9 700	14 200
14.0	73.8	45.5	7 500	11 200
16.0	71.2	44.8	6 000	9 000
18.0	68.5	44.1	4 800	7 400
20.0	65.8	43.2	3 900	6 200
22.0	63.0	42.3	3 200	5 200
24.0	60.1	41.2	2 600	4 400
26.0	57.2	39.9	2 000	3 700
28.0	54.1	38.5	1 600	3 100
30.0	50.9	37.0		2 600
32.0	47.6	35.2		2 200
34.0	44.1	33.3		1 800
36.0	40.3	31.0		1 500