

Liftcrane Boom Capacities

Meets
ANSI B30.5
Requirements

222HD

Boom No. 222HD/222 With Open Throat Top
53,300 Lb. Counterweight
22 Ft. 4 in. Crawlers Extended
360 Degree Rating

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 20,000 Lbs. 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 (16 Ft. 9 in.) 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 22 Ft. 4 in. extendible crawlers, 36 in. treads, 15 Ft. 6 in. retractable gantry, 10 part boom hoist reeving, two 1-1/4 in. boom pendants, 1st counterweight = 28,500 Lb. and 2nd counterweight = 24,800 Lb.

Deduct From Capacities When Jib Is Attached	
Jib Length	Jib No. 10
30 Ft.	1,700 Lbs.
40 Ft.	2,100 Lbs.
50 Ft.	2,600 Lbs.
60 Ft.	3,100 Lbs.

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
200 Ft.	—	200 Ft.	—
190 Ft.	60 Ft.	190 Ft.	—
		180 Ft.	40 Ft.
		170 Ft.	60 Ft.

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. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
40 Ft. Boom			
10	80.7	44.9	200,000 *
11	79.2	44.7	200,000 *
12	77.8	44.5	185,300 *
13	76.3	44.2	171,100 *
14	74.8	44.0	158,800 *
15	73.3	43.7	148,200 *
16	71.8	43.3	138,300
17	70.3	43.0	124,000
18	68.8	42.6	112,300
19	67.2	42.2	102,600
20	65.6	41.7	94,400
22	62.4	40.7	81,300
24	59.1	39.6	71,400
26	55.7	38.3	63,500
28	52.1	36.8	57,200
30	48.4	35.1	52,000
32	44.4	33.2	47,600
34	40.1	30.9	43,800
36	35.4	28.3	40,600
38	30.0	25.1	37,800
40	23.5	21.1	35,300 *
50 Ft. Boom			
11	81.4	54.8	200,000 *
12	80.2	54.7	184,600 *
13	79.1	54.5	170,900 *
14	77.9	54.3	158,700 *
15	76.7	54.0	148,100 *
16	75.5	53.8	138,000 *
17	74.4	53.5	123,900
18	73.2	53.2	112,300
19	72.0	52.9	102,500
20	70.7	52.5	94,400
22	68.3	51.8	81,200
24	65.8	50.9	71,300
26	63.2	49.9	63,400
28	60.6	48.9	57,100
30	58.0	47.6	51,800
32	55.2	46.3	47,400
34	52.3	44.8	43,600
36	49.4	43.2	40,400
38	46.3	41.3	37,600
40	43.0	39.3	35,100
45	33.6	32.8	30,100
50	20.9	23.0	26,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
60 Ft. Boom			
12	81.9	64.8	183,700 *
13	80.9	64.6	170,300 *
14	79.9	64.5	155,600 *
15	79.0	64.3	142,400 *
16	78.0	64.1	132,300 *
17	77.0	63.8	122,700 *
18	76.0	63.6	112,200
19	75.0	63.3	102,400
20	74.1	63.0	94,200
22	72.1	62.4	81,100
24	70.0	61.7	71,100
26	68.0	60.9	63,200
28	65.9	60.1	56,900
30	63.8	59.1	51,600
32	61.6	58.1	47,200
34	59.4	56.9	43,400
36	57.2	55.7	40,200
38	54.9	54.3	37,400
40	52.5	52.8	34,900
45	46.1	48.5	29,900
50	39.0	43.0	26,000
55	30.6	35.7	22,900
60	19.0	24.7	20,400
70 Ft. Boom			
14	81.4	74.6	149,500 *
15	80.6	74.5	138,000 *
16	79.7	74.3	127,200 *
17	78.9	74.1	118,700 *
18	78.1	73.9	111,000 *
19	77.2	73.6	102,300
20	76.4	73.4	94,100
22	74.7	72.9	80,900
24	73.0	72.3	71,000
26	71.3	71.6	63,000
28	69.5	70.9	56,700
30	67.8	70.1	51,400
32	66.0	69.2	47,000
34	64.2	68.3	43,200
36	62.3	67.3	40,000
38	60.5	66.2	37,200
40	58.6	65.0	34,800
45	53.6	61.6	29,700
50	48.3	57.5	25,800
55	42.5	52.5	22,700
60	36.0	46.3	20,300
65	28.3	38.3	18,200
70	17.6	26.3	16,500

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
80 Ft. Boom			
15	81.8	84.6	133,000 *
16	81.0	84.4	122,500 *
17	80.3	84.3	114,700 *
18	79.6	84.1	106,900 *
19	78.8	83.9	100,100 *
20	78.1	83.7	93,900
22	76.6	83.2	80,700
24	75.2	82.7	70,700
26	73.7	82.1	62,800
28	72.2	81.5	56,500
30	70.7	80.8	51,200
32	69.1	80.1	46,800
34	67.6	79.3	43,000
36	66.0	78.4	39,700
38	64.4	77.5	37,000
40	62.8	76.5	34,500
45	58.7	73.7	29,400
50	54.4	70.3	25,500
55	49.9	66.4	22,400
60	45.0	61.8	20,000
65	39.6	56.2	18,000
70	33.6	49.4	16,200
75	26.4	40.7	14,700
80	16.4	27.7	13,500
90 Ft. Boom			
17	81.4	94.4	111,100 *
18	80.7	94.2	103,400 *
19	80.1	94.1	98,100 *
20	79.5	93.9	92,100 *
22	78.2	93.5	80,500
24	76.8	93.0	70,500
26	75.5	92.5	62,600
28	74.2	92.0	56,300
30	72.9	91.4	51,000
32	71.5	90.7	46,500
34	70.2	90.0	42,700
36	68.8	89.3	39,500
38	67.5	88.4	36,800
40	66.1	87.6	34,300
45	62.5	85.1	29,200
50	58.9	82.3	25,300
55	55.1	79.0	22,200
60	51.1	75.2	19,700
65	46.8	70.9	17,700
70	42.3	65.7	16,000
75	37.3	59.7	14,500
80	31.6	52.3	13,200
85	24.8	42.9	12,100
90	15.5	29.1	11,200



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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
100 Ft. Boom			
18	81.7	104.4	100,300 *
19	81.1	104.2	95,100 *
20	80.5	104.0	89,300 *
22	79.4	103.7	79,500 *
24	78.2	103.3	70,300
26	77.0	102.8	62,400
28	75.8	102.3	56,000
30	74.6	101.8	50,700
32	73.5	101.2	46,300
34	72.3	100.6	42,500
36	71.0	99.9	39,400
38	69.8	99.2	36,500
40	68.6	98.4	34,000
45	65.5	96.3	28,900
50	62.3	93.8	25,000
55	59.0	91.0	22,000
60	55.6	87.7	19,600
65	52.0	84.1	17,500
70	48.3	79.8	15,700
75	44.3	75.0	14,300
80	40.0	69.5	13,000
85	35.3	62.9	11,900
90	29.9	55.1	10,900
95	23.5	45.0	10,000
100	14.7	30.4	9,200 *
110 Ft. Boom			
19	81.9	114.3	93,300 *
20	81.4	114.2	87,500 *
22	80.3	113.8	78,800 *
24	79.3	113.5	70,500
26	78.2	113.1	62,500
28	77.1	112.6	56,200
30	76.1	112.1	50,900
32	75.0	111.6	46,400
34	73.9	111.0	42,700
36	72.8	110.4	39,400
38	71.7	109.8	36,700
40	70.6	109.1	34,200
45	67.8	107.2	29,100
50	65.0	105.0	25,200
55	62.1	102.5	22,100
60	59.1	99.6	19,600
65	56.0	96.4	17,700
70	52.8	92.8	15,900
75	49.4	88.8	14,500

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
110 Ft. Boom			
80	45.9	84.2	13,200
85	42.1	79.0	12,100
90	38.1	73.0	11,100
95	33.6	66.0	10,200
100	28.5	57.6	9,400
105	22.4	47.1	8,700
110	14.0	31.7	8,000 *
120 Ft. Boom			
22	81.1	124.0	77,100 *
24	80.2	123.6	69,300 *
26	79.2	123.3	62,300
28	78.2	122.9	56,000
30	77.3	122.4	50,700
32	76.3	121.9	46,200
34	75.3	121.4	42,400
36	74.3	120.9	39,300
38	73.3	120.3	36,400
40	72.3	119.7	33,900
45	69.8	117.9	28,900
50	67.2	115.9	24,900
55	64.6	113.7	21,800
60	61.9	111.1	19,500
65	59.2	108.3	17,400
70	56.3	105.1	15,700
75	53.4	101.6	14,200
80	50.4	97.6	12,900
85	47.2	93.2	11,800
90	43.8	88.3	10,800
95	40.2	82.7	9,900
100	36.4	76.3	9,100
105	32.1	68.9	8,400
110	27.3	60.1	7,800
115	21.4	49.0	7,300
120	13.4	32.8	6,400 *
130 Ft. Boom			
22	81.8	134.1	75,300 *
24	80.9	133.8	67,600 *
26	80.0	133.4	61,400 *
28	79.1	133.1	55,800
30	78.2	132.7	50,400
32	77.3	132.2	46,000
34	76.4	131.7	42,200
36	75.5	131.2	39,100
38	74.6	130.7	36,200
40	73.7	130.1	33,700
45	71.4	128.5	28,600
50	69.0	126.7	24,700
55	66.7	124.7	21,600
60	64.2	122.4	19,300
65	61.8	119.8	17,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
130 Ft. Boom			
70	59.2	117.0	15,400
75	56.6	113.8	13,900
80	53.9	110.3	12,600
85	51.1	106.5	11,500
90	48.3	102.2	10,500
95	45.2	97.5	9,700
100	42.0	92.2	8,900
105	38.6	86.3	8,200
110	34.9	79.5	7,600
115	30.8	71.7	7,000
120	26.2	62.5	6,500
125	20.6	50.8	6,000
130	12.8	34.0	5,000 *
140 Ft. Boom			
24	81.6	143.9	66,000 *
26	80.8	143.6	59,800 *
28	79.9	143.2	55,500
30	79.1	142.9	50,200
32	78.3	142.5	45,700
34	77.4	142.0	41,900
36	76.6	141.6	38,800
38	75.7	141.1	36,000
40	74.9	140.5	33,400
45	72.8	139.1	28,300
50	70.6	137.4	24,400
55	68.4	135.5	21,300
60	66.2	133.4	19,000
65	63.9	131.1	16,900
70	61.6	128.5	15,200
75	59.3	125.6	13,700
80	56.9	122.5	12,400
85	54.4	119.1	11,300
90	51.8	115.3	10,300
95	49.2	111.1	9,400
100	46.4	106.6	8,600
105	43.5	101.5	7,900
110	40.4	95.9	7,300
115	37.1	89.7	6,700
120	33.6	82.6	6,200
125	29.7	74.4	5,700
130	25.2	64.7	5,300
135	19.8	52.6	4,900 *
140	12.4	35.1	3,700 *



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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
150 Ft. Boom			
26	81.4	153.7	58,900 *
28	80.6	153.4	55,100 *
30	79.8	153.0	50,200
32	79.1	152.7	45,700
34	78.3	152.3	41,900
36	77.5	151.8	38,800
38	76.7	151.4	36,000
40	75.9	150.9	33,500
45	73.9	149.5	28,400
50	71.9	148.0	24,500
55	69.9	146.2	21,400
60	67.9	144.3	19,000
65	65.8	142.1	17,000
70	63.7	139.7	15,200
75	61.5	137.1	13,700
80	59.3	134.3	12,400
85	57.1	131.2	11,300
90	54.8	127.8	10,300
95	52.4	124.1	9,500
100	49.9	120.0	8,700
105	47.4	115.6	8,000
110	44.7	110.8	7,300
115	41.9	105.4	6,800
120	39.0	99.5	6,300
125	35.8	93.0	5,800
130	32.4	85.5	5,400
135	28.6	77.0	4,900
140	24.3	66.9	4,600
145	19.1	54.3	4,100 *
150	11.9	36.1	3,100 *

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
160 Ft. Boom			
26	81.9	163.8	59,000 *
28	81.2	163.5	53,700 *
30	80.5	163.2	49,300 *
32	79.7	162.8	45,500 *
34	79.0	162.5	41,700
36	78.3	162.1	38,600
38	77.6	161.6	35,800
40	76.8	161.2	33,300
45	75.0	159.9	28,100
50	73.1	158.5	24,200
55	71.2	156.8	21,100
60	69.3	155.0	18,800
65	67.4	153.0	16,700
70	65.4	150.8	15,000
75	63.5	148.4	13,500
80	61.4	145.8	12,200
85	59.4	142.9	11,000
90	57.3	139.8	10,100
95	55.1	136.5	9,200
100	52.9	132.8	8,400
105	50.6	128.9	7,700
110	48.2	124.6	7,100
115	45.8	119.9	6,500
120	43.2	114.8	6,000
125	40.5	109.2	5,500
130	37.7	103.0	5,100
135	34.6	96.1	4,700
140	31.3	88.4	4,300
145	27.7	79.5	3,900
150	23.5	69.0	3,600 *

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
170 Ft. Boom			
28	81.7	173.6	52,600 *
30	81.0	173.3	48,100 *
32	80.4	173.0	44,400 *
34	79.7	172.6	41,100 *
36	79.0	172.3	38,400
38	78.3	171.9	35,500
40	77.6	171.4	33,000
45	75.9	170.2	27,900
50	74.1	168.9	23,900
55	72.4	167.4	20,800
60	70.6	165.7	18,500
65	68.8	163.8	16,500
70	67.0	161.8	14,700
75	65.1	159.5	13,200
80	63.3	157.1	11,900
85	61.3	154.5	10,800
90	59.4	151.6	9,800
95	57.4	148.5	8,900
100	55.4	145.2	8,100
105	53.3	141.6	7,400
110	51.2	137.7	6,800
115	49.0	133.5	6,200
120	46.7	128.9	5,700
125	44.3	124.0	5,200
130	41.9	118.7	4,800
135	39.3	112.8	4,400
140	36.5	106.3	4,000
145	33.6	99.2	3,700
150	30.4	91.1	3,400
155	26.9	81.9	3,000 *



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180 Ft. Boom			
30	81.5	183.4	40,000 *
32	80.9	183.1	40,000 *
34	80.3	182.8	40,000 *
36	79.6	182.4	38,200
38	79.0	182.1	35,300
40	78.3	181.6	32,800
45	76.7	180.5	27,600
50	75.0	179.3	23,700
55	73.4	177.8	20,600
60	71.7	176.3	18,300
65	70.0	174.5	16,200
70	68.3	172.6	14,400
75	66.6	170.5	12,900
80	64.8	168.2	11,600
85	63.1	165.8	10,500
90	61.3	163.1	9,500
95	59.4	160.3	8,700
100	57.6	157.2	7,900
105	55.7	153.9	7,200
110	53.7	150.3	6,500
115	51.7	146.5	6,000
120	49.6	142.4	5,400
125	47.5	138.0	5,000
130	45.3	133.2	4,500
135	43.0	128.0	4,100
140	40.6	122.4	3,700
145	38.1	116.3	3,400
150	35.5	109.6	3,100

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
190 Ft. Boom			
30	82.0	193.6	37,900 *
32	81.4	193.3	37,200 *
34	80.8	192.9	36,600 *
36	80.2	192.6	36,100 *
38	79.5	192.2	35,200
40	78.9	191.9	32,700
45	77.4	190.8	27,600
50	75.8	189.6	23,600
55	74.3	188.3	20,500
60	72.7	186.8	18,300
65	71.1	185.1	16,200
70	69.5	183.3	14,400
75	67.9	181.4	12,900
80	66.3	179.2	11,600
85	64.6	176.9	10,500
90	62.9	174.5	9,500
95	61.2	171.8	8,600
100	59.5	168.9	7,900
105	57.7	165.9	7,100
110	55.9	162.6	6,500
115	54.1	159.1	5,900
120	52.2	155.3	5,400
125	50.2	151.3	4,900
130	48.2	146.9	4,500
135	46.2	142.3	4,100
140	44.0	137.3	3,700
145	41.8	131.9	3,400
150	39.5	126.0	3,100

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
200 Ft. Boom			
32	81.8	203.4	33,900 *
34	81.2	203.1	32,500 *
36	80.7	202.7	32,000 *
38	80.1	202.4	31,500 *
40	79.5	202.0	31,100 *
45	78.0	201.0	27,300
50	76.6	199.9	23,400
55	75.1	198.6	20,300
60	73.6	197.2	18,000
65	72.1	195.7	15,900
70	70.6	194.0	14,200
75	69.1	192.1	12,700
80	67.5	190.1	11,400
85	66.0	188.0	10,200
90	64.4	185.6	9,300
95	62.8	183.1	8,400
100	61.1	180.5	7,600
105	59.5	177.6	6,900
110	57.8	174.5	6,200
115	56.1	171.3	5,700
120	54.4	167.8	5,100
125	52.6	164.1	4,700
130	50.7	160.1	4,200
135	48.9	155.9	3,800
140	46.9	151.3	3,400
145	44.9	146.5	3,100