

Liftcrane Boom Capacities

Boom No. 111 With Open Throat Top
44,000 Lb. Counterweight
Pedestal Mount - Land Based
0 Degree Machine List

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii are for freely suspended loads and are based on structural competence.

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 all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom 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 with turntable bearing properly supported and gantry up. Refer to boom rigging **No. 911959** or **No. 912877** and Wire Rope Specification chart **No. 9144-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting

or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.

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 top of turntable bearing to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 15 Ft. 6 in. retractable gantry, 10 part boom hoist reeving, two 1-1/4 in. boom pendants, 1st crane counterweight = 28,500 Lbs. and 2nd crane counterweight = 15,500 Lbs.

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
40 Ft. Boom			
10	81.4	41.0	160,000
11	79.9	40.8	150,000
12	78.4	40.6	150,000
13	77.0	40.4	149,800
14	75.5	40.1	139,600
15	74.0	39.8	130,700
16	72.5	39.5	122,800
17	71.0	39.1	115,800
18	69.4	38.8	109,600
19	67.9	38.3	103,900
20	66.3	37.9	98,800
22	63.1	36.9	89,900
24	59.8	35.8	82,400
26	56.4	34.5	76,000
28	52.8	33.0	70,500
30	49.1	31.3	65,700
32	45.1	29.3	60,800
34	40.8	27.1	56,300
36	36.0	24.5	51,100
38	30.7	21.3	45,500
40	24.2	17.2	39,900

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
50 Ft. Boom			
11	81.9	51.0	150,000
12	80.8	50.8	150,000
13	79.6	50.6	149,500
14	78.4	50.4	139,300
15	77.3	50.2	130,400
16	76.1	49.9	122,500
17	74.9	49.7	115,500
18	73.7	49.4	109,200
19	72.5	49.0	103,600
20	71.3	48.7	98,500
22	68.8	47.9	89,600
24	66.3	47.1	82,100
26	63.8	46.1	75,700
28	61.2	45.0	70,200
30	58.5	43.8	65,400
32	55.7	42.5	61,200
34	52.9	41.0	57,200
36	49.9	39.3	53,200
38	46.8	37.5	49,600
40	43.5	35.4	46,400
45	34.2	29.0	39,700
50	21.5	19.1	30,700

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
60 Ft. Boom			
13	81.4	60.8	149,100
14	80.4	60.6	138,900
15	79.4	60.4	130,000
16	78.4	60.2	122,100
17	77.5	60.0	115,100
18	76.5	59.7	108,900
19	75.5	59.5	103,200
20	74.5	59.2	98,100
22	72.5	58.6	89,200
24	70.5	57.9	81,700
26	68.4	57.1	75,400
28	66.3	56.2	69,900
30	64.2	55.3	65,100
32	62.1	54.2	60,800
34	59.9	53.1	57,100
36	57.6	51.8	53,800
38	55.3	50.5	50,200
40	52.9	49.0	47,000
45	46.6	44.6	40,300
50	39.5	39.1	35,000
55	31.0	31.8	30,800
60	19.5	20.9	24,400

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Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
70 Ft. Boom			
14	81.8	70.8	138,600
15	81.0	70.6	129,700
16	80.1	70.4	121,800
17	79.3	70.2	114,800
18	78.4	70.0	108,600
19	77.6	69.8	102,900
20	76.8	69.6	97,800
22	75.1	69.0	88,900
24	73.4	68.4	81,500
26	71.6	67.8	75,100
28	69.9	67.1	69,600
30	68.1	66.3	64,800
32	66.4	65.4	60,600
34	64.5	64.4	56,900
36	62.7	63.4	53,500
38	60.8	62.3	50,500
40	58.9	61.1	47,500
45	54.0	57.7	40,700
50	48.7	53.6	35,400
55	42.9	48.7	31,200
60	36.4	42.5	27,700
65	28.6	34.4	24,800
70	18.0	22.4	20,000
80 Ft. Boom			
16	81.4	80.6	121,400
17	80.6	80.4	114,400
18	79.9	80.2	108,200
19	79.2	80.0	102,500
20	78.5	79.8	97,400
22	77.0	79.4	88,500
24	75.5	78.8	81,100
26	74.0	78.3	74,700
28	72.5	77.7	69,200
30	71.0	77.0	64,400
32	69.5	76.2	60,200
34	67.9	75.4	56,500
36	66.4	74.6	53,100
38	64.8	73.6	50,200
40	63.2	72.6	47,500
45	59.1	69.8	41,100
50	54.8	66.5	35,700
55	50.2	62.5	31,400
60	45.3	57.9	27,900
65	40.0	52.4	24,900
70	33.9	45.6	22,400
75	26.7	36.8	20,200
80	16.8	23.9	16,400

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
90 Ft. Boom			
17	81.7	90.5	111,600
18	81.0	90.4	107,900
19	80.4	90.2	102,300
20	79.8	90.0	97,200
22	78.5	89.6	88,300
24	77.1	89.2	80,800
26	75.8	88.7	74,500
28	74.5	88.1	69,000
30	73.2	87.5	64,200
32	71.8	86.9	60,000
34	70.5	86.2	56,300
36	69.1	85.4	52,900
38	67.8	84.6	50,000
40	66.4	83.7	47,300
45	62.8	81.3	41,500
50	59.2	78.5	36,100
55	55.4	75.2	31,700
60	51.4	71.4	28,200
65	47.1	67.0	25,200
70	42.6	61.9	22,700
75	37.6	55.8	20,500
80	31.9	48.5	18,600
85	25.1	39.1	16,800
90	15.8	25.3	13,800
100 Ft. Boom			
18	81.9	100.5	101,100
19	81.4	100.3	99,000
20	80.8	100.2	96,900
22	79.6	99.8	88,000
24	78.5	99.4	80,500
26	77.3	99.0	74,200
28	76.1	98.5	68,700
30	74.9	97.9	63,900
32	73.7	97.4	59,700
34	72.5	96.7	56,000
36	71.3	96.1	52,600
38	70.1	95.3	49,600
40	68.9	94.6	46,900
45	65.7	92.4	41,200
50	62.6	90.0	36,200
55	59.3	87.1	31,800
60	55.8	83.9	28,200
65	52.3	80.2	25,200
70	48.5	76.0	22,700
75	44.6	71.2	20,500
80	40.3	65.6	18,600
85	35.6	59.1	17,000
90	30.2	51.2	15,500
95	23.8	41.2	14,100
100	14.9	26.6	11,500

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
110 Ft. Boom			
20	81.6	110.3	91,500
22	80.6	110.0	87,600
24	79.5	109.6	80,100
26	78.5	109.2	73,800
28	77.4	108.8	68,300
30	76.3	108.3	63,500
32	75.2	107.8	59,300
34	74.2	107.2	55,600
36	73.1	106.6	52,200
38	72.0	105.9	49,300
40	70.9	105.2	46,600
45	68.1	103.3	40,800
50	65.2	101.1	36,300
55	62.3	98.6	31,900
60	59.3	95.8	28,300
65	56.2	92.6	25,200
70	53.0	89.0	22,700
75	49.7	84.9	20,500
80	46.1	80.3	18,600
85	42.4	75.1	16,900
90	38.3	69.1	15,400
95	33.8	62.2	14,100
100	28.8	53.8	12,900
105	22.7	43.2	11,700
110	14.2	27.8	9,500
120 Ft. Boom			
22	81.4	120.1	81,700
24	80.4	119.8	79,900
26	79.4	119.4	73,500
28	78.5	119.0	68,000
30	77.5	118.6	63,200
32	76.5	118.1	59,000
34	75.5	117.6	55,300
36	74.5	117.0	52,000
38	73.5	116.4	49,000
40	72.5	115.8	46,300
45	70.0	114.1	40,600
50	67.4	112.1	36,000
55	64.8	109.8	32,200
60	62.1	107.3	28,500
65	59.4	104.4	25,400
70	56.6	101.3	22,800
75	53.6	97.7	20,500
80	50.6	93.8	18,600
85	47.4	89.4	16,900
90	44.0	84.4	15,400
95	40.5	78.8	14,100
100	36.6	72.5	12,900
105	32.3	65.1	11,900
110	27.5	56.3	10,900
115	21.7	45.1	9,800
120	13.6	29.0	7,900

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130 Ft. Boom			
24	81.1	129.9	73,500
26	80.3	129.6	71,900
28	79.4	129.2	67,700
30	78.5	128.8	62,700
32	77.6	128.4	58,300
34	76.6	127.9	54,400
36	75.7	127.4	51,000
38	74.8	126.8	48,100
40	73.9	126.3	45,400
45	71.6	124.7	39,800
50	69.3	122.9	35,400
55	66.9	120.8	31,700
60	64.4	118.5	28,400
65	62.0	116.0	25,300
70	59.4	113.1	22,700
75	56.8	109.9	20,400
80	54.1	106.5	18,500
85	51.4	102.6	16,800
90	48.5	98.3	15,300
95	45.4	93.6	14,000
100	42.2	88.3	12,800
105	38.8	82.4	11,700
110	35.1	75.7	10,800
115	31.0	67.9	9,900
120	26.4	58.6	9,100
125	20.8	47.0	8,100
130	13.0	30.1	6,500

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
140 Ft. Boom			
24	81.8	140.0	64,400
26	81.0	139.7	64,100
28	80.1	139.4	63,600
30	79.3	139.0	61,400
32	78.5	138.6	57,000
34	77.6	138.2	53,200
36	76.8	137.7	49,800
38	75.9	137.2	46,900
40	75.1	136.7	44,200
45	73.0	135.2	38,700
50	70.8	133.5	34,400
55	68.6	131.6	30,800
60	66.4	129.6	27,900
65	64.1	127.2	25,200
70	61.8	124.6	22,500
75	59.5	121.8	20,300
80	57.1	118.6	18,300
85	54.6	115.2	16,600
90	52.0	111.4	15,100
95	49.4	107.3	13,800
100	46.6	102.7	12,600
105	43.7	97.7	11,500
110	40.6	92.1	10,600
115	37.3	85.8	9,700
120	33.8	78.7	8,900
125	29.9	70.6	8,100
130	25.4	60.9	7,400
135	20.0	48.7	6,600
140	12.6	31.2	5,100

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
150 Ft. Boom			
26	81.6	149.9	54,700
28	80.8	149.5	54,400
30	80.0	149.2	54,000
32	79.2	148.8	53,700
34	78.5	148.4	53,000
36	77.7	148.0	49,500
38	76.9	147.5	46,500
40	76.1	147.0	43,800
45	74.1	145.6	38,300
50	72.1	144.1	33,900
55	70.1	142.4	30,400
60	68.1	140.4	27,400
65	66.0	138.3	24,900
70	63.9	135.9	22,600
75	61.7	133.3	20,300
80	59.5	130.4	18,400
85	57.3	127.3	16,600
90	54.9	123.9	15,100
95	52.6	120.2	13,800
100	50.1	116.2	12,600
105	47.6	111.7	11,500
110	44.9	106.9	10,500
115	42.1	101.6	9,600
120	39.2	95.7	8,800
125	36.0	89.1	8,000
130	32.6	81.7	7,400
135	28.8	73.2	6,700
140	24.5	63.1	6,100
145	19.3	50.4	5,400
150	12.1	32.3	4,000

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160 Ft. Boom			
28	81.4	159.7	47,000
30	80.6	159.3	46,700
32	79.9	159.0	46,300
34	79.2	158.6	46,000
36	78.5	158.2	45,700
38	77.7	157.8	45,300
40	77.0	157.3	42,900
45	75.1	156.0	37,400
50	73.3	154.6	33,000
55	71.4	153.0	29,500
60	69.5	151.2	26,700
65	67.6	149.2	24,200
70	65.6	147.0	22,100
75	63.6	144.6	20,200
80	61.6	141.9	18,200
85	59.5	139.1	16,500
90	57.4	136.0	14,900
95	55.3	132.6	13,600
100	53.1	129.0	12,400
105	50.8	125.0	11,300
110	48.4	120.7	10,300
115	46.0	116.0	9,400
120	43.4	110.9	8,600
125	40.7	105.3	7,800
130	37.9	99.1	7,200
135	34.8	92.3	6,500
140	31.5	84.5	5,900
145	27.9	75.7	5,400
150	23.7	65.2	4,900
155	18.7	52.1	4,200

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
170 Ft. Boom			
28	81.9	169.8	40,900
30	81.2	169.5	40,600
32	80.5	169.1	40,300
34	79.8	168.8	40,000
36	79.1	168.4	39,700
38	78.5	168.0	39,300
40	77.8	167.6	39,000
45	76.0	166.4	36,400
50	74.3	165.0	32,200
55	72.5	163.5	28,700
60	70.8	161.8	25,900
65	69.0	160.0	23,500
70	67.1	157.9	21,400
75	65.3	155.7	19,600
80	63.4	153.2	18,000
85	61.5	150.6	16,200
90	59.6	147.7	14,700
95	57.6	144.7	13,300
100	55.6	141.3	12,100
105	53.5	137.7	11,000
110	51.3	133.8	10,000
115	49.1	129.6	9,200
120	46.9	125.1	8,300
125	44.5	120.2	7,600
130	42.0	114.8	6,900
135	39.4	108.9	6,300
140	36.7	102.5	5,700
145	33.7	95.3	5,100
150	30.5	87.3	4,600
155	27.0	78.1	4,100
160	23.0	67.2	3,700
165	18.1	53.7	3,000

Oper. Radius Feet	Boom Angle Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
180 Ft. Boom			
30	81.7	179.6	35,000
32	81.0	179.3	34,800
34	80.4	178.9	34,500
36	79.8	178.6	34,200
38	79.1	178.2	33,900
40	78.5	177.8	33,600
45	76.8	176.7	32,900
50	75.2	175.4	32,200
55	73.5	174.0	28,600
60	71.9	172.4	25,700
65	70.2	170.6	23,200
70	68.5	168.7	21,100
75	66.7	166.6	19,300
80	65.0	164.4	17,700
85	63.2	161.9	16,300
90	61.4	159.3	14,700
95	59.6	156.4	13,300
100	57.7	153.3	12,100
105	55.8	150.0	11,000
110	53.9	146.5	10,000
115	51.9	142.6	9,100
120	49.8	138.5	8,200
125	47.7	134.1	7,500
130	45.5	129.3	6,800
135	43.2	124.2	6,100
140	40.8	118.6	5,500
145	38.3	112.4	5,000
150	35.6	105.7	4,500
155	32.8	98.3	4,000
160	29.7	89.9	3,500
165	26.2	80.4	3,100

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190 Ft. Boom			
32	81.5	189.4	30,000
34	80.9	189.1	29,600
36	80.3	188.7	29,100
38	79.7	188.4	29,000
40	79.1	188.0	27,900
45	77.5	186.9	27,200
50	76.0	185.7	26,500
55	74.4	184.4	25,800
60	72.8	182.9	25,000
65	71.3	181.3	22,500
70	69.7	179.5	20,500
75	68.0	177.5	18,700
80	66.4	175.4	17,100
85	64.7	173.1	15,700
90	63.1	170.6	14,500
95	61.3	167.9	13,100
100	59.6	165.1	11,900
105	57.8	162.0	10,700
110	56.0	158.7	9,700
115	54.2	155.2	8,800
120	52.3	151.4	8,000
125	50.4	147.4	7,200
130	48.4	143.1	6,500
135	46.3	138.4	5,900
140	44.2	133.4	5,300
145	42.0	128.0	4,700
150	39.6	122.2	4,200
155	37.2	115.8	3,800
160	34.6	108.9	3,300