

Liftcrane Boom Capacities

2250 SERIES 3

**Boom No. 44 With Heavy Lift Top
Without Upper Boom Point
249,200 Lb. Crane Counterweight
Pedestal Mount - 0 Degree Static Machine List**

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

Upper boom point is removed in capacity determination. Upper boom point capacity for liftcrane service with single part whip line is 30,000 Lbs. or 60,000 Lbs. with two part whip line. 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. 179809**, Wire Rope Specification chart **No. 8025-A**, and Counterweight Arrangement chart **No. 8026-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 operators manual for operating guidelines.

OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation at top of turntable bearing 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 28 Ft. retractable gantry, heavy duty backhitch, 12 part boom hoist reeving, boom support straps and 249,200 Lb. crane counterweight.

Deduct 1,000 Lbs. From Capacities
When Upper Boom Point Is Attached.

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
70 Ft. BOOM			
18	82.9	72.5	600,000
19	82.1	72.3	580,000
20	81.3	72.1	560,000
21	80.4	71.9	550,000
22	79.6	71.7	541,500
23	78.8	71.5	528,500
24	77.9	71.2	507,700
25	77.1	71.0	488,400
26	76.2	70.7	470,500
27	75.4	70.4	453,900
28	74.5	70.1	438,300
29	73.7	69.7	423,700
30	72.8	69.4	410,100
32	71.0	68.6	385,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
70 Ft. BOOM			
34	69.3	67.8	363,000
36	67.5	66.9	342,800
38	65.7	66.0	317,300
40	63.8	64.9	294,900
42	61.9	63.8	275,100
44	60.0	62.6	257,500
46	58.1	61.2	241,700
48	56.1	59.8	227,500
50	54.0	58.3	214,500
55	48.6	53.9	186,900
60	42.6	48.6	162,200
65	35.8	41.9	135,700
70	27.4	33.0	111,900

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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
80 Ft. BOOM			
20	82.4	82.3	526,400
21	81.7	82.1	523,600
22	80.9	81.9	521,000
23	80.2	81.7	518,500
24	79.5	81.5	507,100
25	78.7	81.3	487,800
26	78.0	81.0	469,900
27	77.3	80.8	453,300
28	76.5	80.5	437,700
29	75.8	80.2	423,200
30	75.0	79.9	409,500
32	73.5	79.3	384,600
34	72.0	78.6	362,500
36	70.5	77.8	342,700
38	68.9	77.0	324,800
40	67.3	76.1	302,600
42	65.8	75.1	282,400
44	64.2	74.1	264,400
46	62.5	73.0	248,200
48	60.9	71.8	233,700
50	59.2	70.6	220,500
55	54.8	67.1	192,400
60	50.2	62.9	169,700
65	45.1	58.0	150,800
70	39.6	52.1	133,400
75	33.3	44.8	113,200
80	25.4	35.1	94,500
90 Ft. BOOM			
21	82.6	92.3	498,600
22	81.9	92.1	495,600
23	81.3	91.9	492,600
24	80.6	91.7	489,800
25	80.0	91.5	487,200
26	79.3	91.3	469,500
27	78.7	91.1	452,900
28	78.0	90.8	437,300
29	77.4	90.6	422,800
30	76.7	90.3	409,100
32	75.4	89.7	384,300
34	74.1	89.1	362,100
36	72.7	88.5	342,300
38	71.4	87.7	324,500
40	70.0	87.0	308,400
42	68.6	86.1	289,000
44	67.2	85.3	270,600
46	65.8	84.3	254,200
48	64.4	83.3	239,400
50	63.0	82.2	226,000

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
90 Ft. BOOM			
55	59.3	79.3	197,400
60	55.4	75.8	174,400
65	51.3	71.8	155,300
70	47.0	67.2	139,200
75	42.3	61.8	125,400
80	37.1	55.4	112,500
85	31.2	47.5	96,400
100 Ft. BOOM			
22	82.8	102.2	479,300
23	82.2	102.1	476,300
24	81.6	101.9	473,400
25	81.0	101.7	470,600
26	80.4	101.5	467,900
27	79.8	101.3	452,200
28	79.3	101.1	436,600
29	78.7	100.9	422,100
30	78.1	100.6	408,400
32	76.9	100.1	383,600
34	75.7	99.6	361,500
36	74.5	99.0	341,700
38	73.3	98.3	323,800
40	72.1	97.7	307,700
42	70.9	96.9	293,000
44	69.7	96.1	275,900
46	68.4	95.3	259,200
48	67.2	94.4	244,100
50	65.9	93.5	230,400
55	62.7	90.9	201,300
60	59.3	87.9	177,900
65	55.9	84.5	158,600
70	52.3	80.7	142,300
75	48.5	76.3	128,500
80	44.4	71.3	116,400
85	40.0	65.4	105,900
90	35.1	58.5	95,700
95	29.5	50.0	82,600
110 Ft. BOOM			
23	82.9	112.2	374,400
24	82.4	112.0	371,800
25	81.8	111.9	369,400
26	81.3	111.7	367,000
27	80.8	111.5	364,700
28	80.3	111.3	362,500
29	79.7	111.1	360,300
30	79.2	110.9	358,200
32	78.1	110.4	354,300
34	77.0	109.9	350,600
36	76.0	109.4	341,100
38	74.9	108.8	323,300
40	73.8	108.2	307,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
110 Ft. BOOM			
42	72.7	107.5	292,500
44	71.6	106.8	279,000
46	70.5	106.1	264,500
48	69.4	105.3	249,100
50	68.2	104.5	235,200
55	65.4	102.2	205,500
60	62.4	99.5	181,600
65	59.4	96.6	161,900
70	56.3	93.3	145,400
75	53.0	89.5	131,400
80	49.6	85.3	119,300
85	46.0	80.5	108,700
90	42.2	75.1	99,300
95	38.0	68.8	91,000
100	33.3	61.4	82,600
105	28.0	52.4	71,700
120 Ft. BOOM			
24	83.0	122.1	363,700
25	82.5	122.0	361,400
26	82.0	121.8	359,200
27	81.6	121.7	357,000
28	81.1	121.5	354,900
29	80.6	121.3	352,900
30	80.1	121.1	350,900
32	79.1	120.7	347,200
34	78.1	120.2	343,800
36	77.2	119.7	340,400
38	76.2	119.2	322,600
40	75.2	118.7	305,600
42	74.2	118.1	288,700
44	73.2	117.4	273,500
46	72.2	116.7	259,900
48	71.2	116.0	247,200
50	70.1	115.3	235,800
55	67.6	113.2	208,200
60	64.9	110.8	184,000
65	62.2	108.2	164,100
70	59.5	105.2	147,400
75	56.6	102.0	133,300
80	53.6	98.3	121,100
85	50.6	94.2	110,400
90	47.3	89.6	101,100
95	43.9	84.5	92,700
100	40.2	78.7	85,300
105	36.2	72.0	78,500
110	31.8	64.2	71,500
115	26.7	54.7	62,200

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130 Ft. BOOM			
26	82.7	131.9	350,700
27	82.2	131.8	348,700
28	81.8	131.6	346,700
29	81.3	131.5	344,800
30	80.9	131.3	343,000
32	80.0	130.9	339,500
34	79.1	130.5	336,200
36	78.2	130.0	333,200
38	77.3	129.5	318,800
40	76.4	129.0	300,200
42	75.4	128.5	283,700
44	74.5	127.9	268,900
46	73.6	127.3	255,500
48	72.7	126.6	243,400
50	71.7	125.9	232,400
55	69.4	124.0	208,500
60	67.0	121.9	187,000
65	64.5	119.5	166,800
70	62.1	116.9	149,900
75	59.5	113.9	135,600
80	56.9	110.7	123,300
85	54.2	107.0	112,600
90	51.3	103.1	103,100
95	48.4	98.7	94,800
100	45.3	93.8	87,300
105	42.0	88.3	80,600
110	38.5	82.1	74,500
115	34.7	75.1	68,900
120	30.5	66.8	62,800
125	25.6	56.9	54,900
140 Ft. BOOM			
27	82.8	141.9	341,800
28	82.4	141.8	340,000
29	81.9	141.6	338,200
30	81.5	141.4	336,400
32	80.7	141.1	333,100
34	79.9	140.7	330,100
36	79.0	140.3	327,200
38	78.2	139.8	312,400
40	77.4	139.3	294,100
42	76.5	138.8	277,900
44	75.7	138.3	263,400
46	74.8	137.7	250,400
48	74.0	137.1	238,500
50	73.1	136.5	227,700
55	70.9	134.7	204,500
60	68.7	132.8	185,300
65	66.5	130.6	168,500
70	64.2	128.2	151,400
75	61.9	125.5	136,900
80	59.5	122.6	124,500

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
140 Ft. BOOM			
85	57.1	119.3	113,700
90	54.6	115.8	104,200
95	52.0	111.9	95,800
100	49.3	107.6	88,300
105	46.5	102.9	81,600
110	43.5	97.7	75,500
115	40.4	91.9	69,900
120	37.0	85.4	64,800
125	33.4	78.0	60,100
130	29.3	69.4	54,800
150 Ft. BOOM			
28	82.9	151.9	302,400
29	82.5	151.7	300,500
30	82.1	151.6	298,600
32	81.3	151.2	295,000
34	80.6	150.9	291,500
36	79.8	150.5	288,300
38	79.0	150.1	285,200
40	78.2	149.6	282,300
42	77.4	149.2	273,500
44	76.6	148.7	259,100
46	75.8	148.1	246,300
48	75.1	147.6	234,600
50	74.3	147.0	223,900
55	72.3	145.4	200,900
60	70.2	143.6	182,100
65	68.2	141.5	166,400
70	66.1	139.3	152,800
75	63.9	136.9	138,400
80	61.8	134.2	125,800
85	59.6	131.2	114,900
90	57.3	128.0	105,300
95	55.0	124.5	96,900
100	52.6	120.7	89,300
105	50.1	116.6	82,600
110	47.5	112.0	76,500
115	44.8	107.0	70,900
120	42.0	101.5	65,800
125	38.9	95.4	61,100
130	35.7	88.6	56,800
135	32.2	80.8	52,700
140	28.3	71.8	48,000

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
160 Ft. BOOM			
29	83.0	161.8	292,100
30	82.6	161.7	290,300
32	81.9	161.4	287,100
34	81.1	161.0	284,000
36	80.4	160.7	281,100
38	79.7	160.3	278,300
40	79.0	159.9	275,700
42	78.2	159.4	269,300
44	77.5	159.0	255,100
46	76.8	158.5	242,300
48	76.0	157.9	230,700
50	75.3	157.4	220,200
55	73.4	155.9	197,600
60	71.5	154.2	179,100
65	69.6	152.3	163,600
70	67.7	150.3	150,200
75	65.7	148.0	138,800
80	63.7	145.5	126,800
85	61.7	142.8	115,800
90	59.6	139.9	106,100
95	57.5	136.7	97,600
100	55.3	133.3	90,000
105	53.1	129.5	83,200
110	50.7	125.4	77,000
115	48.4	121.0	71,500
120	45.9	116.2	66,400
125	43.3	110.9	61,700
130	40.5	105.2	57,400
135	37.6	98.8	53,400
140	34.5	91.6	49,700
145	31.1	83.5	46,100
150	27.3	74.2	41,800

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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
170 Ft. BOOM			
30	83.0	171.8	284,100
32	82.4	171.5	281,100
34	81.7	171.2	278,300
36	81.0	170.8	275,600
38	80.3	170.5	273,100
40	79.6	170.1	270,700
42	78.9	169.7	264,900
44	78.2	169.2	250,900
46	77.5	168.8	238,300
48	76.9	168.3	226,900
50	76.2	167.8	216,600
55	74.4	166.3	194,300
60	72.6	164.8	176,200
65	70.9	163.0	161,000
70	69.1	161.1	148,000
75	67.2	159.0	136,800
80	65.4	156.7	127,000
85	63.5	154.2	117,000
90	61.6	151.5	107,300
95	59.6	148.6	98,700
100	57.6	145.4	91,100
105	55.6	142.0	84,300
110	53.5	138.3	78,100
115	51.3	134.3	72,500
120	49.1	130.0	67,400
125	46.8	125.3	62,800
130	44.4	120.2	58,500
135	41.9	114.7	54,500
140	39.2	108.7	50,800
145	36.4	102.0	47,400
150	33.4	94.6	44,100
155	30.1	86.2	41,000
160	26.5	76.5	37,100
180 Ft. BOOM			
32	82.8	181.6	274,600
34	82.1	181.3	272,100
36	81.5	181.0	269,700
38	80.9	180.6	267,400
40	80.2	180.3	265,200
42	79.6	179.9	258,200
44	78.9	179.5	246,600
46	78.3	179.0	234,200
48	77.6	178.6	222,900
50	76.9	178.1	212,700
55	75.3	176.8	190,800
60	73.6	175.3	172,900
65	72.0	173.6	157,900
70	70.3	171.8	145,200
75	68.6	169.9	134,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
180 Ft. BOOM			
80	66.8	167.7	124,600
85	65.1	165.4	116,100
90	63.3	162.9	107,800
95	61.5	160.2	99,100
100	59.6	157.2	91,500
105	57.8	154.1	84,600
110	55.8	150.7	78,400
115	53.9	147.0	72,700
120	51.8	143.1	67,600
125	49.8	138.9	63,000
130	47.6	134.4	58,700
135	45.4	129.5	54,700
140	43.1	124.2	51,000
145	40.6	118.4	47,600
150	38.1	112.1	44,400
155	35.4	105.2	41,400
160	32.4	97.4	38,500
165	29.2	88.7	35,800
170	25.7	78.7	32,100
190 Ft. BOOM			
34	82.6	191.4	241,300
36	81.9	191.1	238,800
38	81.3	190.8	236,500
40	80.7	190.4	234,200
42	80.1	190.1	232,000
44	79.5	189.7	229,900
46	78.9	189.3	227,200
48	78.3	188.8	220,000
50	77.6	188.4	209,800
55	76.1	187.1	187,900
60	74.5	185.7	170,200
65	72.9	184.2	155,300
70	71.4	182.5	142,800
75	69.7	180.6	131,900
80	68.1	178.6	122,500
85	66.5	176.4	114,100
90	64.8	174.1	106,600
95	63.1	171.5	99,700
100	61.4	168.8	91,900
105	59.7	165.9	85,000
110	57.9	162.7	78,800
115	56.1	159.4	73,100
120	54.2	155.8	68,000
125	52.3	151.9	63,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
190 Ft. BOOM			
130	50.3	147.8	58,900
135	48.3	143.4	54,900
140	46.2	138.6	51,300
145	44.1	133.5	47,800
150	41.8	127.9	44,700
155	39.5	121.9	41,700
160	37.0	115.4	38,900
165	34.4	108.2	36,200
170	31.5	100.2	33,700
175	28.4	91.2	31,200
200 Ft. BOOM			
34	82.9	201.5	233,400
36	82.4	201.2	231,200
38	81.8	200.9	229,100
40	81.2	200.6	227,100
42	80.6	200.2	225,200
44	80.0	199.9	223,200
46	79.4	199.5	218,200
48	78.9	199.1	213,400
50	78.3	198.6	207,200
55	76.8	197.4	185,400
60	75.3	196.1	167,700
65	73.8	194.7	153,000
70	72.3	193.1	140,400
75	70.8	191.3	129,700
80	69.3	189.4	120,300
85	67.7	187.4	112,000
90	66.2	185.1	104,700
95	64.6	182.8	98,100
100	63.0	180.2	92,100
105	61.3	177.5	85,200
110	59.7	174.5	78,900
115	58.0	171.4	73,200
120	56.3	168.1	68,100
125	54.5	164.5	63,300
130	52.7	160.7	59,000
135	50.9	156.7	55,000
140	49.0	152.3	51,300
145	47.0	147.7	47,800
150	45.0	142.7	44,600
155	42.9	137.4	41,700
160	40.7	131.6	38,900
165	38.4	125.4	36,200
170	36.0	118.6	33,700
175	33.4	111.2	31,400
180	30.7	102.9	29,100
185	27.7	93.6	26,900