

Liftcrane Boom Capacities

2250

Boom No. 79
209,200 Lb. Crane Counterweight
120,000 Lb. Carbody Counterweight
360 Degree Rating

Meets
ANSI B30.5
Requirements

With Mast - 130 Ft.

LIFTING CAPACITIES: Lifting 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 27,700 Lbs. or 55,400 Lbs. with two part whip line. When luffing hoist for 7/8 in. wire rope is used, capacity is 20,000 Lbs. with single part whip line or 40,000 Lbs. with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacities.

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 on a firm uniformly supporting surface with gantry and mast up. Refer to boom rigging **No. 194041**, Wire Rope Specification chart **No. 8189-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, 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 with boom within boom angle range shown in capacity chart. Travel may be limited depending upon ground conditions. Refer to Maximum Allowable Travel Specification chart **No. 9208-A** when operating without load.

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 30 Ft. 9 in. crawlers, 48 in. treads, 28 Ft. retractable gantry, 130 Ft. mast, 10 part boom hoist reeving, boom support straps, 209,200 Lb. crane counterweight, two 30,000 Lb. and four 15,000 Lb. carbody counterweights.

Maximum Boom Lengths Lifted Unassisted		
Over End of Blocked Crawlers	Over End of Unblocked Crawlers	Over Side of Crawlers
Boom Length	Boom Length	Boom Length
240 Ft.	220 Ft.	220 Ft.
Load block, hook and weight ball on ground at start.		

Boom Catwalks Deduct
Deduct 500 Lbs. from capacities when boom catwalks are attached.

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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
120 Ft. Boom			
26	82.3	128.4	451,600 *
28	81.3	128.1	420,800 *
30	80.4	127.7	393,500 *
32	79.4	127.2	369,300 *
34	78.4	126.8	347,600 *
36	77.4	126.2	328,100 *
38	76.4	125.7	310,400 *
40	75.4	125.1	294,400 *
45	72.9	123.5	258,300
50	70.4	121.6	220,700
55	67.8	119.4	191,700
60	65.1	117.0	168,600
65	62.4	114.3	149,800
70	59.6	111.3	134,200
75	56.7	107.9	121,000
80	53.8	104.1	109,700
85	50.6	99.9	100,000
90	47.4	95.2	91,500
95	43.9	89.9	83,900
100	40.1	83.8	77,200
105	36.1	76.9	71,200
110	31.5	68.7	65,800
115	26.1	58.7	60,800
120	19.3	45.3	56,300
140 Ft. Boom			
28	82.6	148.4	417,900 *
30	81.8	148.0	390,700 *
32	80.9	147.7	366,600 *
34	80.1	147.3	344,900 *
36	79.3	146.8	325,400 *
38	78.4	146.3	307,800 *
40	77.6	145.8	291,700 *
45	75.4	144.5	257,400 *
50	73.3	142.9	219,700
55	71.1	141.1	190,600
60	68.9	139.1	167,500
65	66.7	136.8	148,700
70	64.4	134.3	133,000
75	62.1	131.6	119,900
80	59.7	128.6	108,600
85	57.2	125.3	98,800
90	54.7	121.6	90,300
95	52.1	117.6	82,800
100	49.4	113.3	76,100
105	46.5	108.4	70,100
110	43.5	103.1	64,700
115	40.3	97.1	59,800
120	36.9	90.4	55,400
125	33.2	82.7	51,300
130	28.9	73.7	47,500
135	24.0	62.7	44,000
140	17.7	48.1	40,700

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
160 Ft. Boom			
30	82.8	168.3	386,800 *
32	82.1	168.0	362,700 *
34	81.3	167.6	341,100 *
36	80.6	167.2	321,700 *
38	79.9	166.8	304,100 *
40	79.2	166.4	288,100 *
45	77.3	165.2	253,800 *
50	75.5	163.8	218,200
55	73.6	162.3	189,000
60	71.7	160.6	165,900
65	69.8	158.6	147,000
70	67.8	156.5	131,300
75	65.9	154.2	118,100
80	63.9	151.7	106,800
85	61.8	148.9	97,000
90	59.7	145.9	88,500
95	57.6	142.6	81,000
100	55.4	139.1	74,300
105	53.1	135.3	68,300
110	50.8	131.1	62,900
115	48.4	126.6	58,000
120	45.9	121.7	53,600
125	43.2	116.3	49,500
130	40.5	110.3	45,800
135	37.5	103.8	42,400
140	34.3	96.4	39,200
145	30.8	88.0	36,200
150	26.9	78.3	33,400
155	22.3	66.4	30,800
160	16.4	50.7	28,300
180 Ft. Boom			
32	83.0	188.2	360,100 *
34	82.3	187.9	338,600 *
36	81.7	187.6	319,200 *
38	81.0	187.2	301,600 *
40	80.4	186.8	285,600 *
45	78.8	185.8	251,400 *
50	77.1	184.6	217,100
55	75.5	183.2	188,000
60	73.8	181.7	164,800
65	72.1	180.0	145,900
70	70.4	178.2	130,200
75	68.7	176.1	117,000
80	67.0	173.9	105,700
85	65.2	171.6	95,900
90	63.4	169.0	87,300
95	61.6	166.2	79,800
100	59.8	163.2	73,100
105	57.9	160.0	67,100
110	55.9	156.6	61,700
115	53.9	152.8	56,900

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
180 Ft. Boom			
120	51.9	148.8	52,400
125	49.8	144.6	48,400
130	47.6	139.9	44,700
135	45.4	134.9	41,300
140	43.0	129.5	38,100
145	40.6	123.6	35,200
150	38.0	117.1	32,400
155	35.2	110.0	29,900
160	32.2	102.1	27,500
165	28.9	93.1	25,200
170	25.3	82.6	23,100
175	20.9	69.9	21,000
180	15.4	53.2	19,100
200 Ft. Boom			
36	82.5	207.8	315,700 *
38	81.9	207.5	298,100 *
40	81.4	207.2	282,200 *
45	79.9	206.2	248,000 *
50	78.4	205.1	215,700
55	77.0	203.9	186,400
60	75.5	202.6	163,100
65	74.0	201.1	144,100
70	72.5	199.4	128,400
75	70.9	197.6	115,100
80	69.4	195.7	103,700
85	67.9	193.6	93,900
90	66.3	191.3	85,300
95	64.7	188.9	77,800
100	63.1	186.3	71,100
105	61.4	183.5	65,100
110	59.8	180.5	59,600
115	58.1	177.4	54,800
120	56.3	174.0	50,300
125	54.6	170.4	46,200
130	52.8	166.5	42,500
135	50.9	162.4	39,100
140	49.0	157.9	35,900
145	47.0	153.2	33,000
150	45.0	148.2	30,200
155	42.9	142.7	27,700
160	40.7	136.8	25,300
165	38.3	130.5	23,100
170	35.9	123.5	21,000
175	33.3	115.9	19,000
180	30.5	107.4	17,100
185	27.4	97.8	15,300
190	23.9	86.7	13,600
195	19.8	73.2	11,900

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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
220 Ft. Boom			
38	82.7	227.8	296,300 *
40	82.1	227.4	280,400 *
45	80.8	226.6	246,200 *
50	79.5	225.6	215,400
55	78.2	224.5	186,000
60	76.8	223.3	162,600
65	75.5	221.9	143,500
70	74.1	220.4	127,800
75	72.8	218.8	114,400
80	71.4	217.1	103,000
85	70.0	215.2	93,200
90	68.6	213.2	84,600
95	67.2	211.0	77,000
100	65.7	208.7	70,300
105	64.3	206.3	64,300
110	62.8	203.6	58,800
115	61.3	200.8	53,900
120	59.8	197.9	49,500
125	58.3	194.7	45,400
130	56.7	191.4	41,700
135	55.1	187.8	38,200
140	53.5	184.1	35,100
145	51.8	180.1	32,100
150	50.1	175.8	29,400
155	48.3	171.3	26,800
160	46.5	166.5	24,500
165	44.7	161.4	22,200
170	42.7	155.9	20,100
175	40.7	150.1	18,100
180	38.6	143.8	16,300
185	36.4	137.0	14,500
190	34.1	129.6	12,800
195	31.6	121.4	11,200

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
240 Ft. Boom			
40	82.8	247.7	276,700 *
45	81.6	246.9	242,500 *
50	80.4	246.0	213,800
55	79.2	245.0	184,200
60	77.9	243.9	160,800
65	76.7	242.6	141,700
70	75.5	241.3	125,800
75	74.2	239.8	112,400
80	73.0	238.3	101,000
85	71.7	236.5	91,100
90	70.5	234.7	82,500
95	69.2	232.8	74,900
100	67.9	230.7	68,100
105	66.6	228.5	62,100
110	65.3	226.1	56,600
115	63.9	223.6	51,700
120	62.6	221.0	47,200
125	61.2	218.2	43,200
130	59.8	215.2	39,400
135	58.4	212.1	36,000
140	57.0	208.8	32,800
145	55.5	205.3	29,800
150	54.0	201.6	27,100
155	52.5	197.7	24,600
160	51.0	193.6	22,200
165	49.4	189.3	19,900
170	47.8	184.7	17,800
175	46.1	179.8	15,900
180	44.4	174.6	14,000
185	42.6	169.2	12,200
190	40.8	163.3	10,600