



Liftcrane Boom Capacities

**Boom No. 49A-44 With Heavy Lift Top
No Crane Counterweight
360 Degree Rating**

**2250 or M-250
WITH MAST - 80 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 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 on a firm uniformly supporting surface with gantry and mast up. Refer to boom rigging **No. 176364** or **No. 192633** and Wire Rope Specification chart **No. 7581-L**. 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. 7748-B** 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, 80 Ft. mast, 12 part boom hoist reeving, four 1-1/2 in. boom pendants or boom support straps and no crane counterweight.

Maximum Boom Lengths Lifted Unassisted	
Over End of Blocked Crawlers	Over Side of Crawlers
Boom Length	Boom Length
160 Ft.	140 Ft.
Load block, hook and weight ball on ground at start.	



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Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
100 Ft. BOOM			
21	82.7	108.8	355,700
22	82.1	108.7	320,400
23	81.5	108.5	291,200
24	81.0	108.3	266,700
25	80.4	108.1	245,700
26	79.8	107.9	227,600
28	78.6	107.5	197,900
30	77.4	107.0	174,600
32	76.2	106.4	155,800
34	75.1	105.9	140,300
36	73.9	105.3	127,300
38	72.7	104.6	116,200
40	71.4	103.9	106,700
42	70.2	103.1	98,500
44	69.0	102.3	91,200
46	67.7	101.4	84,800
48	66.5	100.5	79,100
50	65.2	99.6	73,900
55	61.9	96.9	63,100
60	58.6	93.8	54,600
65	55.1	90.4	47,600
70	51.4	86.4	41,700
75	47.6	81.9	36,800
80	43.4	76.7	32,600
85	38.9	70.6	28,900
90	33.9	63.4	25,700
95	28.1	54.5	22,900
120 Ft. BOOM			
23	83.0	128.7	293,900
24	82.5	128.6	269,100
25	82.0	128.4	248,000
26	81.5	128.3	229,700
28	80.5	127.9	199,700
30	79.6	127.5	176,100
32	78.6	127.1	157,100
34	77.6	126.6	141,500
36	76.6	126.1	128,400
38	75.6	125.5	117,200
40	74.6	124.9	107,600
42	73.6	124.3	99,300
44	72.6	123.7	91,900
46	71.6	123.0	85,400
48	70.6	122.2	79,700

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
120 Ft. BOOM			
50	69.6	121.4	74,500
55	67.0	119.3	63,600
60	64.3	116.9	54,900
65	61.6	114.2	47,800
70	58.8	111.2	42,000
75	56.0	107.8	37,000
80	53.0	104.0	32,700
85	49.9	99.8	29,000
90	46.6	95.2	25,800
95	43.1	89.9	23,000
100	39.4	83.9	20,400
105	35.3	77.0	18,100
110	30.8	68.9	16,100
115	25.5	58.9	14,200
140 Ft. BOOM			
26	82.7	148.5	226,300
28	81.9	148.2	196,300
30	81.1	147.9	172,800
32	80.2	147.5	153,800
34	79.4	147.1	138,100
36	78.6	146.6	125,000
38	77.7	146.2	113,900
40	76.9	145.7	104,300
42	76.0	145.2	95,900
44	75.2	144.6	88,600
46	74.3	144.0	82,100
48	73.5	143.4	76,300
50	72.6	142.7	71,100
55	70.4	141.0	60,200
60	68.2	138.9	51,600
65	66.0	136.7	44,500
70	63.7	134.2	38,700
75	61.4	131.5	33,700
80	59.0	128.5	29,500
85	56.5	125.2	25,800
90	54.0	121.6	22,600
95	51.4	117.6	19,800
100	48.7	113.2	17,200
105	45.9	108.4	15,000
110	42.9	103.1	12,900
115	39.7	97.2	11,100

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
160 Ft. BOOM			
28	82.9	168.4	197,600
30	82.2	168.1	173,800
32	81.5	167.8	154,700
34	80.7	167.5	138,900
36	80.0	167.1	125,700
38	79.3	166.7	114,500
40	78.6	166.2	104,800
42	77.8	165.8	96,400
44	77.1	165.3	89,100
46	76.3	164.8	82,500
48	75.6	164.3	76,700
50	74.9	163.7	71,500
55	73.0	162.1	60,500
60	71.1	160.4	51,800
65	69.2	158.5	44,700
70	67.2	156.4	38,800
75	65.3	154.1	33,800
80	63.3	151.6	29,600
85	61.2	148.8	25,900
90	59.1	145.8	22,600
95	57.0	142.6	19,800
100	54.8	139.1	17,300
105	52.6	135.3	15,000
110	50.2	131.1	12,900
115	47.8	126.6	11,100