



**1015**

# Liftcrane Boom Capacities

Meets  
ANSI B30.5  
Requirements

**Boom No. 83 For Drill Attachment**  
**53,000 Lb. Counterweight**  
**23 Ft. 6 in. Crawlers Extended**  
**360 Degree Rating**

**LIFTING CAPACITIES:** Lifting capacities for boom length 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 (\*). Drill rig attachment must be removed for use of this chart.

Capacities indicated by (b) require 3,900 Lb. minimum weight. Upper boom point operation not allowed on capacities denoted by (b).

Upper boom point capacity for liftcrane service is 66,000 Lbs. with single part 38 mm whip line. Upper boom point capacity for liftcrane service is 44,000 Lbs. with single part 32 mm whip line or 66,000 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 in a level position on a firm uniformly supporting surface with gantry up. Refer to boom rigging **No. A04763** and Wire Rope Specification chart **No. 8474-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. 8475-A** (page 1 only) and Machine Travel Without Load table below.

Machine Travel Without Load 105 Ft. Boom Length		
Percent Grade	Downhill	Uphill
	Boom Angle Range in Degrees	
0 - 1	30 - 72	30 - 72
2 - 10	30 - 72	30 - 66
11 - 20	40 - 72	30 - 60
21 - 30	60 - 72	30 - 55

**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 23 Ft. 6 in. extendible crawlers, 39-3/8 in. treads, 9 Ft. 7 in. gantry, 25 Ft. live mast, 12 part boom hoist reeving, two 1-1/2 in. pendants and 53,000 Lb. counterweight.

Oper. Rad. Feet	Boom Ang. Deg.	Boom Point Elev. Feet	Boom Capacity Pounds
<b>105 Ft. Boom</b>			
20	82.9	112.1	164,000 <b>b</b>
22	81.8	111.8	140,300 <b>b</b>
24	80.7	111.4	122,200
26	79.6	111.1	107,900
28	78.5	110.6	96,200
30	77.3	110.1	86,600
32	76.2	109.6	78,500
34	75.1	109.1	71,600
36	73.9	108.4	65,700
38	72.8	107.8	60,500
40	71.6	107.1	55,900
45	68.7	105.2	46,600
50	65.7	102.9	39,400
55	62.6	100.3	33,700
60	59.5	97.4	29,100
65	56.2	94.1	25,300
70	52.8	90.3	22,000
75	49.2	86.1	19,200
80	45.4	81.3	16,800
85	41.4	75.7	14,700
90	36.9	69.2	12,800
95	31.9	61.5	11,200
100	26.0	52.0	9,600
105	18.3	38.8	8,200

Jib must be removed before use of this chart.