

# Clamshell/Grapple Capacities

# 999 SERIES 1

**Boom No. 82 or 22EL**  
**114,600 Lb. Counterweight**  
**360 Degree Rating**

**LIFTING CAPACITIES:** Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 67.5% of a static tipping load. Capacities are based on tipping, structural competence (\*), operating speeds and other factors.

Weight of bucket is considered part of load. 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. 195459** (No. 82) or **No. 195890** (No. 22EL) and Wire Rope Specification chart **No. 8223-B**. Crane operator judgment must be used to allow for 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 to the center of gravity of the freely suspended load. Boom angle is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius.

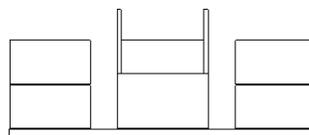
**MACHINE EQUIPMENT:** Machine equipped with 28 Ft. 2 in. crawlers, 48 in. treads, 10 Ft. 3 in. retractable gantry, 30 Ft. live mast, 20 part boom hoist reeving, boom support straps or four 1-3/8 in. boom pendants and 114,600 Lb. counterweight.

Oper. Radius Feet	Boom Angle Deg.	Boom Capacity Pounds
<b>70 Ft. BOOM</b>		
35	67.5	30,000 *
40	63.0	30,000 *
45	58.2	30,000 *
50	53.1	30,000 *
55	47.6	30,000 *
60	41.6	30,000 *
65	34.7	30,000 *
70	26.1	30,000 *
<b>80 Ft. BOOM</b>		
40	66.6	30,000 *
45	62.6	30,000 *
50	58.4	30,000 *
55	54.0	30,000 *
60	49.3	30,000 *
65	44.3	30,000 *
70	38.7	30,000 *
75	32.3	30,000 *

Oper. Radius Feet	Boom Angle Deg.	Boom Capacity Pounds
<b>90 Ft. BOOM</b>		
45	65.9	30,000 *
50	62.3	30,000 *
55	58.6	30,000 *
60	54.7	30,000 *
65	50.6	30,000 *
70	46.3	30,000 *
75	41.6	30,000 *
80	36.3	30,000 *
85	30.3	29,400
<b>100 Ft. BOOM</b>		
45	68.4	30,000 *
50	65.3	30,000 *
55	62.1	30,000 *
60	58.7	30,000 *
65	55.3	30,000 *
70	51.6	30,000 *
75	47.8	30,000 *
80	43.7	30,000 *
85	39.3	29,500
90	34.3	26,700
95	28.7	24,300

Oper. Radius Feet	Boom Angle Deg.	Boom Capacity Pounds
<b>110 Ft. BOOM</b>		
50	67.7	30,000 *
55	64.8	30,000 *
60	61.9	30,000 *
65	58.8	30,000 *
70	55.7	30,000 *
75	52.4	30,000 *
80	49.0	30,000 *
85	45.4	29,300
90	41.5	26,600
95	37.3	24,100
100	32.6	21,900
105	27.2	19,900

Oper. Radius Feet	Boom Angle Deg.	Boom Capacity Pounds
<b>120 Ft. BOOM</b>		
55	67.1	30,000 *
60	64.4	30,000 *
65	61.7	30,000 *
70	58.9	30,000 *
75	56.1	30,000 *
80	53.1	30,000 *
85	50.0	29,200
90	46.8	26,500
95	43.3	24,000
100	39.6	21,800
105	35.6	19,900
110	31.2	18,100
115	26.0	16,500



114,600 Lb. Crane Counterweight  
4 Side Boxes - 1 Center Box