## Clamshell/Grapple Capacities

Boom No. 83A 53,000 Lb. Counterweight **Pedestal Mount** 0 Degree thru 1 Degree and 1 Degree thru 3 Degree Machine List 360 Degree Rating

LIFTING CAPACITIES: Capacities for various boom lengths and operating radii are for freely suspended loads and are based on 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 with turntable bearing properly supported, machine list not to exceed degrees noted and gantry up. Refer to boom rigging No. A14196 and Wire Rope Specification chart No. 8697-B. Crane operator judgment must be used to allow for adverse operating conditions and physical machine depreciation. Refer to Operator's 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.

MACHINE EQUIPMENT: Machine equipped with 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.

### **Upper Boom Point Deduct**

Deduct 1,300 Lbs. from capacities when upper boom point is attached.

#### **Auxiliary Drum Deduct**

Deduct 2,000 Lbs. from boom capacities when boom butt is equipped with auxiliary drum.

### Wire Rope Guard Deduct

Deduct 1,000 Lbs. from boom capacities when boom top is equipped with wire rope guard No. A13283.

		0 Degree Thru	1 Degree Thru		
		1 Degree	3 Degree		
Oper.	Boom	Machine List	Machine List		
Radius	Angle	<b>Boom Capacity</b>	<b>Boom Capacity</b>		
Feet	Deg.	Pounds	Pounds		
50 Ft. Boom					
30	64.1	40,000	40,000		
35	57.4	40,000	40,000		
40	50.0	40,000	40,000		
45	41.6	40,000	40,000		
50	31.2	38,100	36,600		
60 Ft. Boom					
30	68.8	40,000	40,000		
35	63.4	40,000	40,000		
40	57.8	40,000	40,000		
45	51.8	40,000	39,900		
50	45.2	37,800	36,000		
55	37.6	34,200	32,700		
60	28.1	31,100	29,900		

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds	
70 Ft. Boom				
35	67.5	40,000	40,000	
40	62.9	40,000	40,000	
45	58.1	40,000	39,300	
50	53.1	37,600	35,400	
55	47.6	34,000	32,200	
60	41.5	30,900	29,500	
65	34.5	28,300	27,100	
70	25.9	26,000	25,100	

# **Clamshell/Grapple Capacities**

Boom No. 83A 53,000 Lb. Counterweight **Pedestal Mount** 0 Degree thru 1 Degree and 1 Degree thru 3 Degree Machine List 360 Degree Rating

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds		
1000		_ 0 0	_ 0 0		
		0 Ft. Boon			
40	66.6	40,000	40,000		
45	62.6	40,000	38,500		
50	58.4	37,200	34,700		
55	54.0	33,600	31,500		
60	49.3	30,600	28,800		
65	44.2	28,000	26,500		
70	38.6	25,700	24,500		
75	32.1	23,800	22,800		
80	24.0	22,000	21,300		
	90 Ft. Boom				
45	65.9	40,000	37,800		
50	62.3	36,900	34,100		
55	58.6	33,300	31,000		
60	54.7	30,300	28,400		
65	50.6	27,700	26,100		
70	46.2	25,500	24,100		
75	41.5	23,600	22,400		
80	36.2	21,900	20,900		
85	30.1	20,300	19,500		
90	22.5	19,000	18,300		
100 Ft. Boom					
50	65.3	36,500	33,500		
55	62.1	33,000	30,500		
60	58.7	30,000	27,900		
65	55.2	27,400	25,600		
70	51.6	25,200	23,700		
75	47.8	23,300	22,000		
80	43.7	21,600	20,400		
85	39.2	20,100	19,100		
90	34.2	18,700	17,900		
95	28.5	17,500	16,800		
100	21.3	16,400	15,800		

Oper. Radius Feet	Boom Angle Deg.	0 Degree Thru 1 Degree Machine List Boom Capacity Pounds	1 Degree Thru 3 Degree Machine List Boom Capacity Pounds			
	110 Ft. Boom					
50	67.7	36,300	33,100			
55	64.8	32,800	30,100			
60	61.9	29,800	27,500			
65	58.8	27,300	25,300			
70	55.7	25,100	23,400			
75	52.4	23,200	21,700			
80	49.0	21,500	20,200			
85	45.4	20,000	18,900			
90	41.5	18,600	17,700			
95	37.2	17,400	16,600			
100	32.5	16,300	15,600			
105	27.1	15,300	14,700			
110	20.2	13,700	13,300			
	12	20 Ft. Boo	m			
55	67.1	32,400	29,500			
60	64.4	29,500	27,000			
65	61.7	27,000	24,800			
70	58.9	24,800	22,900			
75	56.1	22,900	21,300			
80	53.1	21,200	19,800			
85	50.0	19,700	18,500			
90	46.7	18,400	17,300			
95	43.3	17,100	16,200			
100	39.6	16,100	15,200			
105	35.6	15,100	14,300			
110	31.1	14,200	13,500			
115	25.8	12,800	12,400			
120	19.3	10,400	10,000			