## Clamshell/Grapple Capacities



#### Boom No. 83A 53,000 Lb. Counterweight 23 Ft. 6 in. Crawlers Extended **Crawler Machine on a Barge** 0 Degree thru 1 Degree and 1 Degree thru 3 Degree Machine List 360 Degree Rating

LIFTING CAPACITIES: Capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. 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 on a firm uniformly supporting surface, 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 barge deck to 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.

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		
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	38,000	36,100		
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 *	40,000 *		
50	45.2	38,000	35,500		
55	37.6	33,100	31,200		
60	28.1	29,100	27,600		

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.

#### **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.

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 *	40,000 *			
50	53.1	37,900	34,900			
55	47.6	33,100	30,700			
60	41.5	29,100	27,200			
65	34.5	25,800	24,300			
70	25.9	23,000	21,800			
80 Ft. Boom						
40	66.6	40,000 *	40,000 *			
45	62.6	40,000 *	38,900			
50	58.4	37,200	33,800			
55	54.0	32,400	29,800			
60	49.3	28,600	26,400			
65	44.2	25,300	23,500			
70	38.6	22,600	21,100			
75	32.1	20,200	19,000			
80	24.0	18,100	17,100			

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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		
90 Ft. Boom					
45	65.9	40,000 *	38,000		
50	62.3	36,800	33,100		
55	58.6	32,100	29,100		
60	54.7	28,300	25,800		
65	50.6	25,100	23,000		
70	46.2	22,300	20,600		
75	41.5	20,000	18,500		
80	36.2	17,900	16,700		
85	30.1	16,100	15,100		
90	22.5	14,500	13,700		
100 Ft. Boom					
50	65.3	36,300	32,300		
55	62.1	31,600	28,400		
60	58.7	27,800	25,100		
65	55.2	24,600	22,300		
70	51.6	21,900	20,000		
75	47.8	19,600	17,900		
80	43.7	17,600	16,100		
85	39.2	15,800	14,600		
90	34.2	14,200	13,200		
95	28.5	12,800	11,900		
100	21.3	11,500	10,800		

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	36,000	31,700			
55	64.8	31,400	27,900			
60	61.9	27,600	24,700			
65	58.8	24,400	22,000			
70	55.7	21,800	19,600			
75	52.4	19,400	17,600			
80	49.0	17,400	15,900			
85	45.4	15,700	14,300			
90	41.5	14,100	12,900			
95	37.2	12,700	11,700			
100	32.5	11,500	10,600			
105	27.1	10,300				
120 Ft. Boom						
55	67.1	30,900	27,100			
60	64.4	27,100	24,000			
65	61.7	24,000	21,300			
70	58.9	21,300	19,000			
75	56.1	19,000	17,000			
80	53.1	17,000	15,300			
85	50.0	15,300	13,700			
90	46.7	13,700	12,400			
95	43.3	12,300	11,200			
100	39.6	11,100	10,000			