Clamshell/Grapple Capacities

777 SERIES 1

Boom No. 78
68,000 Lb. Counterweight
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 and machine list not to exceed degrees noted. Refer to boom rigging **No. 178288** and Wire Rope Specification chart **No. 8156-A**. Crane operator

judgment must be used to allow for adverse operating conditions and physical machine depreciation. <u>Refer to operators manual for operating guidelines.</u>

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.

MACHINE EQUIPMENT: Machine equipped with 24 Ft, 9 in. crawlers, 38 in. or 48 in. treads, two 12 in. boom hoist cylinders, 26 Ft. mast, four 1-1/4 in. boom pendants and 68,000 Lb. counterweight.

Upper Boom Point Deduct

Deduct 1,000 Lbs. from boom capacities when upper boom point is attached.

Auxiliary Drum Deduct

Deduct 1,700 Lbs. from boom capacities when boom butt is equipped with auxiliary drum.

Multi-Part Rope Guard Deduct

Deduct 500 Lbs. from boom capacities when lower boom point is equipped with multi-part rope guard (No. A02744).

Wire Rope Guide Deduct

(For Third Line)

Deduct 500 Lbs. from boom capacities when boom top wire rope guide (No. 192312) for third line is attached.

Oper. Radius	Boom Angle	0 Degree Thru 1 Degree Machine List Boom Capacity	1 Degree Thru 3 Degree Machine List Boom Capacity				
Feet	Deg.	Pounds	Pounds				
60 Ft. BOOM							
30	66.5	29,500 *	29,500 *				
35	61.2	29,500 *	29,500 *				
40	55.4	29,500 *	29,500 *				
45	49.3	29,500 *	29,500 *				
50	42.5	29,500 *	27,100 *				
55	34.5	28,200 *	24,200 *				
60	24.3	25,700 *	21,700 *				
	70 Ft. BOOM						
35	65.6	29,500 *	29,500 *				
40	61.0	29,500 *	29,500 *				
45	56.1	29,500 *	29,500 *				
50	50.9	29,500 *	27,200 *				
55	45.3	28,300 *	24,300 *				
60	39.1	25,800 *	21,900 *				
65	31.8	23,600 *	19,800 *				
70	22.4	21,800 *	18,000 *				

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			
	80 Ft. BOOM					
35	68.9	29,500 *	29,500 *			
40	64.9	29,500 *	29,500 *			
45	60.9	29,500 *	29,500 *			
50	56.6	29,500 *	27,100 *			
55	52.2	28,300 *	24,300 *			
60	47.4	25,800 *	21,800 *			
65	42.2	23,600 *	19,800 *			
70	36.4	21,800 *	18,100 *			
75	29.6	19,600	16,500 *			



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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						
40	67.9	29,500 *	29,500 *			
45	64.4	29,500 *	29,500 *			
50	60.8	29,500 *	27,100 *			
55	57.0	28,300 *	24,200 *			
60	53.1	25,700 *	21,800 *			
65	48.9	23,600 *	19,800 *			
70	44.5	21,800 *	18,100 *			
75	39.6	19,600	16,600 *			
80	34.2	17,600	15,200 *			
85	27.8	15,800	14,000 *			
90	19.6	14,200	13,000 *			
100 Ft. BOOM						
45	67.1	29,500 *	29,500 *			
50	64.0	29,500 *	27,000 *			
55	60.7	28,200 *	24,100 *			
60	57.3	25,700 *	21,700 *			
65	53.8	23,600 *	19,700 *			
70	50.1	21,800 *	18,000 * //			
75	46.2	19,500	16,500 *			
80	42.0	17,400	15,100 *			
85	37.5	15,600	14,000 *			
90	32.3	14,100	12,900 *			
95	26.3	12,600	11,900			
100	18.5	11,400	10,800			

			0 Degree Thru	1 Degree Thru
		//	1 Degree	3 Degree
	Oper.	Boom	Machine List	Machine List
	Radius	Angle	Boom Capacity	Boom Capacity
	Feet	Deg.	Pounds	Pounds
	1001	_		_ 0 0
\leq			<u>0 Ft. BOO</u>	
	50	66.5	29,500 *	26,900 *
	55	63.6	28,200 *	24,100 *
	60	60.6	25,700 *	21,700 *
	65	57.6	23,600 *	19,700 *
	70	54.4	21,700	17,900 *
	75	51.1	19,400	16,400 *
	80	47.6	17,300	15,100 *
	85	43.9	15,600	13,900 *
	90	40.0	14,000	12,900 *
	95	35.6	12,600	11,700
/	100	30.8	11,400	10,600
	105	25.0	10,200	9,600
		12	0 Ft. BOO	M
	55	66.0	28,200 *	24,000 *
	60	63.3	25,700 *	21,600 *
	65	60.6	23,500 *	19,600 *
	70	57.8	21,600	17,900 *
	75	54.9	19,200	16,400 *
	80	51.9	17,200	15,100 *
	85	48.7	15,500	13,900 *
	90	45.4	13,900	12,800
	95	41.9	12,600	11,500
	100	38.2	11,300	10,400
	105	34.0	10,200	9,400
	110	29.4	9,200	8,500
	115	23.9	8,200	7,700