

# Clamshell/Grapple Capacities

## 222HD

**Boom No. 222HD With Open Throat Top**  
**28,500 Lb. Counterweight**  
**22 Ft. 4 in. Crawlers Extended**  
**Crawler Machine on a Barge**  
**0 Degree thru 3 Degree Machine List**  
**No Travel - 360 Degree Rating**

**LIFTING CAPACITIES:** Capacities are for a crawler machine with crawlers extended 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 in a level position on a firm uniformly supporting surface with crawlers fully extended, gantry up and machine list not to exceed degrees noted. Refer to boom rigging **No. 911764** and

Wire Rope Specification chart **No. 9064-A**. 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 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 22 Ft. 4 in. extendible crawlers, 36 in. treads, 15 Ft. 6 in. retractable gantry, 10 part boom hoist reeving, two 1-1/4 in. boom pendants and 28,500 Lb. counterweight.

Maximum Boom Length Lifted Unassisted	
List	Boom Length
0 Degree	100 Ft.
1 Degree	100 Ft.
2 Degree	90 Ft.
3 Degree	80 Ft.

Load block, hook and weight ball on barge deck at start.



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Oper. Radius Feet	Boom Angle Deg.	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	3 Degree List Boom Capacity Pounds	Oper. Radius Feet
<b>40 Ft. BOOM</b>						
22	65.4	30,000 *	30,000 *	30,000 *	28,700 *	22
24	62.1	30,000 *	29,800 *	27,800 *	26,100 *	24
26	58.8	30,000 *	27,500 *	25,500 *	23,900 *	26
28	55.3	30,000 *	25,400 *	23,500 *	22,000 *	28
30	51.7	30,000 *	23,600 *	21,800 *	20,400 *	30
32	47.9	27,500	22,100 *	20,400 *	18,900 *	32
34	43.8	25,100	20,700 *	19,000 *	17,700 *	34
36	39.4	23,000	19,500 *	17,900 *	16,500 *	36
38	34.4	20,700 *	18,400 *	16,800 *	15,500 *	38
40	28.8	17,000 *	16,600 *	15,900 *	14,600 *	40
<b>50 Ft. BOOM</b>						
26	65.6	30,000 *	27,400 *	25,400 *	23,800 *	26
28	63.0	30,000 *	25,400 *	23,500 *	21,900 *	28
30	60.4	30,000 *	23,600 *	21,800 *	20,300 *	30
32	57.7	27,400	22,100 *	20,300 *	18,800 *	32
34	54.9	24,900	20,700 *	19,000 *	17,500 *	34
36	52.0	22,800	19,500 *	17,800 *	16,400 *	36
38	49.0	21,000	18,400 *	16,700 *	15,400 *	38
40	45.8	19,400	17,400 *	15,800 *	14,500 *	40
45	37.0	16,100	15,300 *	13,800 *	12,600 *	45
50	25.5	11,100 *	10,200 *	10,000 *	9,900 *	50
<b>60 Ft. BOOM</b>						
30	65.7	30,000 *	23,500 *	21,700 *	20,100 *	30
32	63.6	27,100	22,000 *	20,200 *	18,700 *	32
34	61.4	24,700	20,600 *	18,900 *	17,400 *	34
36	59.2	22,600	19,400 *	17,700 *	16,300 *	36
38	56.9	20,800	18,300 *	16,600 *	15,300 *	38
40	54.6	19,100	17,400 *	15,700 *	14,400 *	40
45	48.4	15,900	15,300 *	13,700 *	12,400 *	45
50	41.6	13,400	12,500 *	12,100 *	10,900 *	50
55	33.6	11,300 *	9,800 *	9,600 *	9,300 *	55
60	23.2	7,200 *	5,900 *	5,800 *	5,700 *	60
<b>70 Ft. BOOM</b>						
34	65.8	24,600	20,600 *	18,800 *	17,300 *	34
36	64.0	22,400	19,400 *	17,600 *	16,200 *	36
38	62.2	20,600	18,300 *	16,600 *	15,200 *	38
40	60.3	19,000	17,300 *	15,600 *	14,300 *	40
45	55.4	15,700	15,200	13,700 *	12,400 *	45
50	50.2	13,200	12,400 *	11,900 *	10,800 *	50
55	44.6	11,200	9,800 *	9,400 *	9,100 *	55
60	38.3	9,300 *	7,600 *	7,400 *	7,100 *	60
65	30.9	7,500 *	5,900 *	5,700 *	5,500 *	65

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<b>80 Ft. BOOM</b>						
38	65.9	20,400	18,200 *	16,500 *	15,000 *	38
40	64.3	18,700	17,300 *	15,500 *	14,100 *	40
45	60.2	15,400	14,800	13,600 *	12,200 *	45
50	56.0	12,900	12,100 *	11,500 *	10,700 *	50
55	51.5	10,900	9,500 *	9,000 *	8,600 *	55
60	46.7	8,900 *	7,300 *	7,000 *	6,700 *	60
65	41.5	7,200 *	5,600 *	5,300 *	5,100 *	65
70	35.7	5,800 *				70

Oper. Radius Feet	Boom Angle Deg.	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	2 Degree List Boom Capacity Pounds	Oper. Radius Feet
<b>90 Ft. BOOM</b>					
40	67.4	16,400	15,900 *	15,500 *	40
45	63.8	15,200	14,500	13,500	45
50	60.2	12,700	11,900 *	11,200	50
55	56.5	10,700	9,200 *	8,700 *	55
60	52.5	8,700 *	7,100 *	6,700 *	60
65	48.3	6,900 *	5,300 *	5,000 *	65
70	43.9	5,500 *			70

Oper. Radius Feet	Boom Angle Deg.	0 Degree List Boom Capacity Pounds	1 Degree List Boom Capacity Pounds	Oper. Radius Feet
<b>100 Ft. BOOM</b>				
45	66.6	13,900	13,600 *	45
50	63.5	12,500	12,000	50
55	60.2	10,500	9,600 *	55
60	56.8	8,300 *	7,500 *	60
65	53.3	6,600 *	5,700 *	65
70	49.6	5,100 *		70